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News

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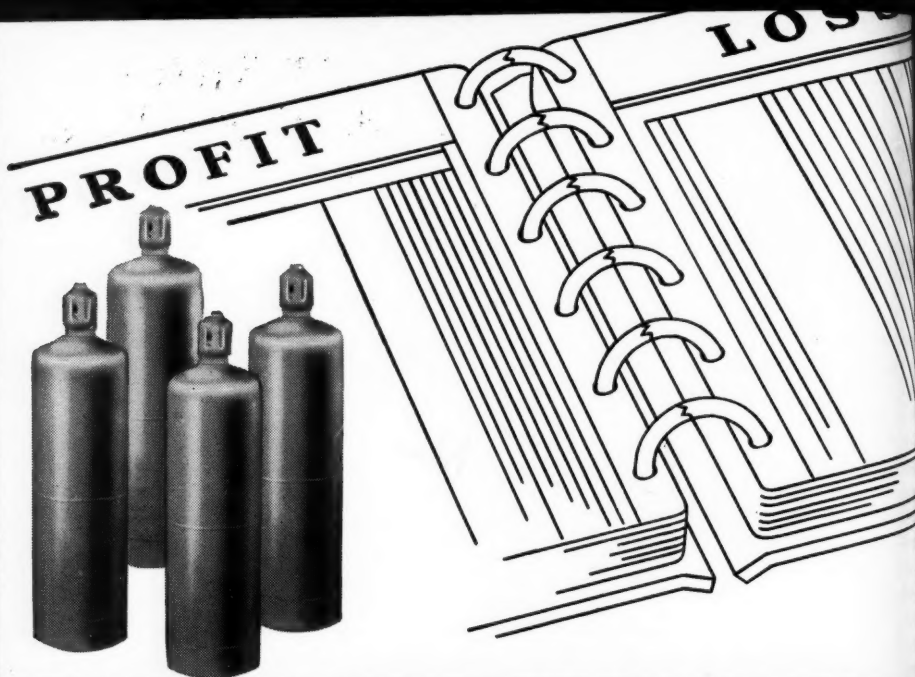
Technology

*Anchor Gas*

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with  
**ANCHOR GAS**  
Butane  
&  
Propane

**ANCHOR**  
Petroleum Company  
Tulsa, Oklahoma  
PRODUCERS & MARKETERS

August 1944



## HOW HACKNEY DESIGN IMPROVES YOUR BALANCE SHEET

**T**HE extra years of service that your Hackney L-P Gas Cylinders provide, are made possible by Pressed Steel Tank Company's more than 40 years of experience in the manufacture of compressed gas cylinders. As a result of Hackney design, you are assured of ample strength to withstand costly damage . . . light weight with its important economies . . . and uniformity, which is one of the main factors of continued customer approval.

Research, production skill and careful

testing, from raw material to finished product, are your assurance that the advantages of the design are present in your Hackney L-P Gas Cylinders.

Hackney products are contributing to the war effort in many ways. As the demand for these products becomes less critical as the supply of material becomes readily available, Pressed Steel Tank Company plans to resume the production of products to meet civilian needs. Write for details.

# Pressed Steel Tank Company

GENERAL OFFICES AND FACTORY • 1487 SOUTH 66th STREET

*Milwaukee 14, Wisconsin*

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AND SOLIDS**



# L.P.G. FOR CONSTANT PRECISION MEASUREMENT: BEST CONTROL

The Pittsburgh Equitable Meter Company and Sub-  
Merco Nordstrom Valve Company, manufactures  
a complete line of metering, regulating and con-  
signment for L.P.G. Whether in liquid or vaporous  
there is a meter or valve designed to handle the  
accurately, safely and economically.

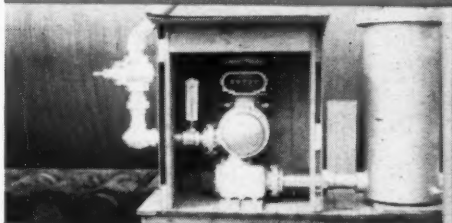
One of the more common L.P.G. applications for  
company's products are pictured on this page. L.P.G.  
able—it deserves the protection that can be pro-  
vided by accurate meters and reliable controls.

With the combined "EMCO", "PITTSBURGH" and  
"NORDSTROM" line, there's equipment for virtually  
any type of L.P.G. service. Feel free to consult our  
equipment and control engineers on any and all prob-  
lems relating to the handling of this essential commodity.

**PITTSBURGH EQUITABLE METER CO.**  
**EMCO NORDSTROM VALVE CO.**  
Main Offices, PITTSBURGH, PA.  
Columbia    Houston    Kansas City    Los Angeles  
Pittsburgh    San Francisco    Seattle    Tulsa  
National Meter Division, Brooklyn, N. Y.



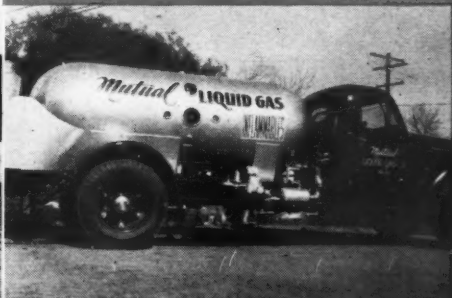
EMCO Pilot Loaded Regulators and Nordstrom Valves serving at  
STANDBY BUTANE PLANT



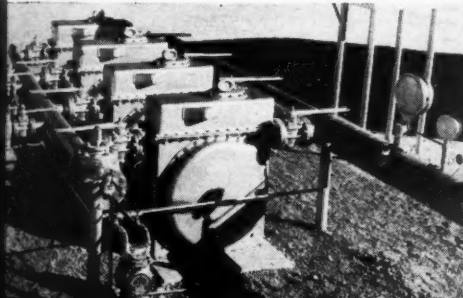
Pittsburgh Rotocycle Meter measuring liquid butane at  
BULK STORAGE PLANT



EMCO Butane-Propane Vapor Meter installed on  
TANK GAS SETTING



Pittsburgh Pilot Meter measuring L.P.G. dispensed from  
DISTRIBUTOR'S TANK TRUCK



Large Capacity Vapor Meter and Nordstrom Valves installed at  
TOWN GAS PLANT

 Propane Meter	 EMCO Large Capacity Pressed Steel Gas Meter	 EMCO Type "B" Ejector Service Regulator	 ROTCYCLE Meter for Liquid Butane-Propane	 NORDSTROM Lubricated Plug Valve
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**METERS AND REGULATORS • NORDSTROM LUBRICATED PLUG VALVES • PITTSBURGH LIQUID METERS**



# BUTANE-PROPANE

## News

Reg. U. S. Pat. Off.



### Contents for August 1944

Letters	7
Guest Editorial: Technical Development in Equipment	7
<i>By John R. Holicer</i>	11
Mainly Beyond the Mains	13
<i>By Elliott Taylor</i>	13
Commercial and Industrial Applications—Chapter 1—Introduction	17
<i>By C. C. Turner</i>	17
Tanks on Hand, Customers Waiting, But Priorities Hard to Get	26
<i>By O. D. Hall</i>	29
LP-Gas Sales Up 15% in 1943	29
Technical and Standards Committee of the LPGA—Chapter 1, Background and Objectives	39
<i>By Walter H. Hoagland</i>	39
How to File Exceptions to L-86	51
<i>By P. S. Magruder</i>	51
Men "In the Ranks" Hold Key to Safety Improvements	57
<i>By George A. Burrell</i>	57
Current Reading	61
Selling the Postwar Market	65
<i>By J. E. Bogan</i>	65
Propane, Stored in 24-Inch, Seamless Tubing, Solves Peak Demand	69
<i>By Frank D. Howell</i>	69
The Trade	75
C. D. Gard Elected President of CNGA	81
Service Price Law Simplified	84
Classified	94
Advertisers	96

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# LETTERS

Have you service or operating problems? Submit them to us and our technical department will endeavor to help you.—Ed.

families to the smaller towns where natural gas is not obtainable for the duration.

I have just had to refuse them because I was already operating on a shortage of cylinders.

Is there anything about the priority obtained through filing a WPB-809 that would give me the necessary priority, to buy the necessary tanks, etc., to install each of these jobs which would be approved through Washington?

Indiana

First, it must be remembered that gas ranges are rationed, and it is necessary to go before your local War Price and Rationing Board to get their approval of any sale.

Before doing that, however, you would be wise to apply to the Petroleum Administration for War for an exception to the L-86 Order. This you would do upon WPB Form-809. Without a cylinder and equipment the range would, of course, be useless.

Amendments are being made frequently to all existing orders, and I think it would be advisable in your case for you to write direct to the PAW office in Washington, D.C. and explain your case just as you did to me, so that you may be assured of having final approval to any action you take. Probably, the most direct course would be to file a WPB-809 with Washington, and the action taken upon that would indicate what course you may pursue.—Ed.

Gentlemen:

We are using two automatic water heaters as a medium of heat for converting liquid butane to vapor. We have a butane-air gas plant—vaporize liquid, then mix air to make 530 Btu. butane-air gas.

We now need additional heat and heat exchangers to take care of our winter peak load. We are now using

Gentlemen:

I have an idea that I would like to put in a retail butane gas plant, as soon as the war is over. I do not know anything about the business and would appreciate any information that you can give me.

H. R. M.

Mississippi

You will find many answers to your question regarding equipment in the display ads of BUTANE-PROPANE News. I suggest that you look these over carefully, and if they do not satisfy your need, write us specifically for such information as you may want, and we will do our best to help you.

You will probably notice, in the editorial columns, frequent references to the present trend toward higher pressure vessels. This has been prompted by the shortage of butane that has occurred since the government began using it so extensively in high octane gasoline and synthetic rubber manufacture. The industry as a whole thinks it is wise today to purchase containers of all sizes suitable to withstand the higher vapor pressures of propane so that any possible future shortage of butane will not handicap them. There is not anticipated any propane shortage.—Ed.

Gentlemen:

I have been having a lot of requests from prospective bottled gas stove buyers, for me to fill out and mail to Washington the form WPB-809 for purpose of gaining for them a priority to purchase a stove, and have them installed.

I have had a number of such requests from men just leaving for the service, who have been working in the large cities and are now moving their

a circular 1-in. R.I.P. through a jacket 12-in. D x 8 ft. H with a 25 gal. and 75 gal. 100,000 Btu. input to each heater circulating through this 1-in. pipe of its own free will and accord.

Our peak load is near 20,000 CFG per hour; our gas making equipment is only 14,000 CFG per hour. And, therefore, within three or four hours our entire 1-in. pipe, which is the hot water line, is frozen.

We are wondering if you have any suggestions in our troubles.

L. M.

### Alabama

Roughly, you need about 100,000 Btu. per hour input into the liquid to furnish the latent heat for vaporization at your peak load.

You have sufficient heater capacity, but it is evident the circulation through the 1 in. coil is not fast enough to provide sufficient hot water to keep the coil from freezing up.

If you have electricity available at the plant, we would suggest you install a small centrifugal booster pump in your water circuit to insure positive circulation at all times. These pumps are inexpensive and commercially available from a number of manufacturers.

As the length of your coil has not been stated, we cannot advise if it has sufficient transfer surface, but judging from the other dimensions of your vaporizer, we would expect it to be suitable for the load.—Ed.

Gentlemen:

Will you please inform me where to get complete or a fair variety of information concerning legal decisions pertaining to the propane and butane industry as it affects a distributor, consumer leases and contracts. I wish to make a study for future expansion in this industry and so as to protect myself from legal mistakes.

I am a subscriber to your magazine.

R. G.

### Michigan

Many states have special codes covering the transportation, storage, and utilization of liquefied petroleum gases. You should write to the Michigan Secretary of State and find out what the Michigan statutes are.

In the absence of any state code, or in addition to such code, you should also have a copy of Pamphlet No. 58, "Standards of the National Board of Fire Underwriters", as this is the basis for nearly all regulations of the industry. A copy of this book can be had from the above named firm at 222 W. Adams Street, Chicago, Ill.

We publish the only textbook upon the gas industry that is available. It is called "Handbook BUTANE-PROPANE Gases," and sells for \$5. Also, we are preparing to publish a book entitled "The Bottled Gas Manual." This is a compilation of 24 chapters of editorial material on the subject of selling and servicing bottled gas installations which is serially in BUTANE-PROPANE News for more than two and a half years.

I am enclosing a copy of a form of contract which is more or less standard with all operating companies. The firm with whom you finally enter into agreement for the purchase of fuel will gladly show you its contract form and will give you a great deal of help in the information necessary to establish yourself as an Editor.

Gentlemen:

Will you please advise me of several manufacturers of equipment for the drying of cotton in cotton gin with propane gas?

Also, burner manufacturers making equipment for singeing and drying cloth in cotton mills.

F. B.

### South Carolina

You will find among the advertisements in BUTANE-PROPANE News the names of firms making special burners for special purposes including cotton drying operations.—Ed.

Gentlemen:

I would like to have the address of the Washington Newsletter mentioned in your June issue, page 101.

G. B.

### Oklahoma

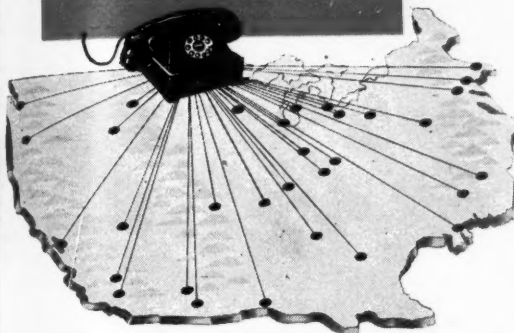
In reply to your letter, we are glad to give you the address of the Washington Newsletter mentioned in our June issue. It is:

Vincent F. Callahan, Editor,  
Surplus War Property Newsletter  
1701 "H" St., NW,  
Washington, D. C.

# 31 Talking Points

## FOR GENERAL CONTROLS

### FIELD SALES AND SERVICE



**GENERAL CONTROLS'** branch and agency sales and service offices are located in principal cities. Their adequate facilities, the experience and counsel of their personnel, are as conveniently near to you as your telephone.

There are talking points about General Controls' engineering and field service that should benefit you. We are in the automatic controls business. Our business is "Controls." Thousands will tell you that we know our business. Your wire, letter or telephone call (see yellow classified section of principal city telephone directories) will bring a qualified General Controls Engineer to your office.

Atlanta 3—General Controls Co., 319 Spring St. N.W.

Birmingham 3—F. J. Evans Eng. Co., 1115 Watts Bldg.

Boston 16—Automatic Controls Co., 687 Boylston

Butte—Sullivan Valve & Eng. Co., 910 S. Arizona St.

Chicago 11—Automatic Controls Co., 450 E. Ohio St.

Cincinnati 2—R. R. Gannon Co., 223 Gwynne Bldg.

Cleveland 15—General Controls Co., 3224 Euclid Ave.

Dallas 2—General Controls Co., 1100 Cadiz St.

Denver 10—General Controls Co., 2011 S. Gilpin St.

Detroit 2—General Controls Co., 6432 Cass Ave.

El Paso—George W. Herlin, 401 Santa Fe

Great Falls—Northwest Supply Co.

Huntington—H. Y. Keeler, 208 Hines Bldg.

Indianapolis 2—I. W. Cotton Co., 146 W. 16th St.

Kansas City—General Controls Co.

Los Angeles 13—Jensen Instrument, 335 S. Central Ave.

Louisville 2—R. R. Gannon Co., 415 Heyburn Bldg.

Muskegon—Fitzpatrick Elec. Supply Co., 42 Concord

New Orleans 12—Devlin Bros., 1003 Maritime Bldg.

New York 17—General Controls Co., 101 Park Ave.

Oklahoma City 2—Federal Supply Co., 120 E. Main St.

Philadelphia 40—General Controls Co., 4515 N. Broad St.

Pittsburgh 21—T. F. Campbell Co., 1013 Penn. Wilkinsburg

Portland 12, Oregon—B. W. Farnes, 3019 N. E. 26th St.

Phoenix—Crane Company, 233 S. First St.

Salt Lake City 1—Stevens Sales Co., 41 Post Office Place

St. Louis 10—Fillo Sales & Engr. Co., 605 S. Vandeventer

St. Paul 4—Thermal Co., Inc., 2448 University Ave.

San Francisco 3—General Controls Co., 471 9th St.

Seattle 1—Refrig. & Power Specialties Co., 2309 5th Ave.

Tucson—Crane Company, 35 Toole Ave.

**Write for Catalog 52**

**GENERAL CONTROLS**  
801 ALLEN AVE. GLENDALE 1, CALIF.

BRANCHES: BOSTON • NEW YORK • DETROIT • CHICAGO  
DALLAS • KANSAS CITY • PHILADELPHIA • ATLANTA  
FLYING • WINTER • SAN FRANCISCO



**JOHN R. HOLICER**  
**Guest Editor for August**

# Technical Development In Equipment

By JOHN R. HOLICER

President, Louisiana Butane Dealers Association, and  
President, Holicer Gas Co., Inc., Shreveport, La.

The war has vastly developed technical processes in every field of industry; and the LP-Gas industry has expanded its horizons with the new arts and learning taught by war.

Outlines of the character of new equipment for handling, transporting, generating, dispensing and generally utilizing LP-Gas after the war are now plainly observable; and the presently realizable ambition of research in the development of such equipment will give to the industry better tools and the methods which will comprehend at least a dozen factors:

1. Greater safety in all LP-Gas equipment.
2. Simpler, stronger, safer and yet lighter transportation equipment.
3. Scientifically exact methods for effectively maintaining a constant Btu. output from each LP-Gas used for fuel.
4. Properly conceived and scientifically executed processes for utilizing mixed fuels to deliver uniform heat.
5. Safe and cheap apparatus for instantly generating a continuing supply of uniform fuel sufficient to meet every volume demand, regardless of atmosphere conditions or earth temperature.
6. Prevention of the delivery of any fuel in liquid form to gas consuming appliances.
7. Lighter, safer, inexpensive and more positive operating control fittings.
8. Longer lasting storage, generating and delivery equipment.
9. Quicker and cheaper procedure in the installation of equipment.
10. Eliminations of old hazards and dangers of fire and explosions.
11. Elimination of freeze-ups and service call expenses, regardless of variations in temperature.
12. Satisfactory conversion of prewar and inefficient equipment to modern, safe and dependable uses.

The post-war business in LP-Gas equipment will go to those who design, make, sell and supply equipment having the character and offering the uses and safeguards presented in this outline.



## I'M YOUR MAN, BOSS!

★ More than a half million national magazine readers this month will be greeted by the friendly Bryant pup and his offer to work for them as furnace man as soon as wartime restrictions on gas heating are lifted.

Many of these readers are *your* customers. And now is a good time for you to line up their postwar orders by selling them on the advantages of Bryant gas heating.

Gas heating will create extra business in installations, also a large and continuing sale of gas. Selling Bryant, you are backed by a nationally-known product and the pioneer name in gas heating. If you want help in expanding your business and profits in post-war, remember the Bryant pup who says . . . "I'm your man, Boss!" The Bryant Heater Co., 17825 St. Clair Ave., Cleveland 10, Ohio—*One of the Dresser Industries.*

**bryant**  
**GAS**  
**HEATING**



Let the pup be furnace man

BUTANE-PROPANE

# MAINLY BEYOND THE MAINS

By ELLIOTT TAYLOR, Washington Editor

## Needed Information

The annual report on the marketed production of liquefied petroleum gases for 1943 has just been released by the U. S. Bureau of Mines. It shows a grand total of 675,233,000 gals. of propane, butane and pentane sold during the last year. Our own estimate for the same period, prepared and presented in the January, 1944 issue of Butane-Propane News, was 701,999,000 gals.—an error of approximately 3.8%. Since our estimate for the year before—1942—was also too high by approximately the same percent, we have come to the conclusion that we are by nature inclined to be approximately 3% over-optimistic.

However, the compilation of exact figures on LP-Gas production and output has not as yet reached a very high degree of accuracy even in official releases. For example, the annual survey



ELLIOTT TAYLOR

of the Bureau of Mines shows a total marketed production of 675,233,000 gals. for the year, while the total of the monthly surveys for the same period, also compiled by the Bureau in its natural gasoline reports, came to only 578,256,000 gals. of LP-Gas classed as sold for fuel. Here is a difference of nearly 97 million gals. out of a total of 675 million, or nearly 15% discrepancy between two sets of official figures, compiled by the same government agency.

Still another fact-finding job is in the works, at PAW, where the LP-Gas industry committee is plugging along with the returns on a questionnaire that was supposed to be completed by June 1. We understand that the findings on this confidential piece of labor will not be generally released. But when and if end totals are made available for inspection, we are prepared to see yet another set of totally different figures released as representing the marketed production of butane and propane for 1943.

It seems to us that this haphazard and inconclusive way of going about capturing the statistics on the LP-Gas industry should be speedily remedied so

that there will be one official set of figures, and so that those figures will be consistent as to relation between the sum of monthly production figures and the annual volume of this highly important product. And we further believe that if one government agency collects the figures that is enough. The Bureau of Mines and the Petroleum Administration for War are in the same building in Washington, but when it comes to working together on LP-Gas information they both might as well be on different planets.

It seems to us that it should present no insurmountable problems, and there should be no unanswerable objections either from industry or government, to formulating a system for gathering all LP-Gas statistics that are needed, and keeping them up to date, accurate and always available at one source. We can see no reason why figures on butane and propane going for use as refinery fuel, for instance, should not be compiled, as well as those for other uses such as gasoline, synthetic rubber, and chemical needs, with a record of inter-company transfers.

As a permanent agency rather than a war born organization, the Bureau of Mines should handle the job.

PAW is right now trying to speed through its own survey primarily to find out what it is going to be up against next winter in the matter of availability

of butane, and of the tank cars that will be required to move both butane and propane. Last winter's butane supply difficulties in the southern states could have been largely averted if sufficient planning had been done in advance by the PAW and by the LP-Gas industry.

But planning has to be based on facts and figures, not on theories and fancies, and it is for that reason that PAW is belatedly trying to assemble the background material that it will need to meet next winter's problems. It is also true that for this one time it will require information of a type not normally within the scope of Bureau of Mines investigations — such as commitments by individual producers to supply future requirements of industries and for various war purposes.

All of the information being requested, however, regarding last year's production and the end uses to which it was put, should be available without any special probe by PAW. It should be routine background stuff that anyone could have on a few minutes' notice by simply calling up the economics and statistics service of the Bureau of Mines.

We believe that the Bureau of Mines could be prevailed upon to undertake this new and more accurate continuing appraisal of LP-Gas operations and output. It would require evidence of a willingness to cooperate on the part of the major producers of

LP-Gas, but certainly the advantages to the industry and to all of the producers who belong to it would be sufficient to warrant fullest cooperation.

We are confident that a limited amount of industry expansion could be permitted right now, in certain areas, if all of the facts were on hand at PAW. And we are equally confident that there will be no relaxation of restrictions on the part of WPB or PAW until it can be definitely shown on the basis of the indisputable figures that some expansion can be permitted without disrupting either the normal present civilian or industrial demand, or interfering with necessary production.

We have to realize that while it is still not a probability, there is a possibility of a very abrupt termination of the war on either front. All of the schemes for getting industry back into normal channels may suddenly have to be shifted from their present compound low into high gear.

When reconversion time comes the first ones to get the nod, among the essential industries, will undoubtedly be those that are in a position to demonstrate that they have both the capacity and equipment to resume a measure of their normal activities.

## Get Together

The appearance in the late July and early August issues of national magazines of the new

advertising campaign of the American Gas Association gives rise again to the question of whether LP-Gas is going to be considered a member of the gas fuel family, or whether it will have to try to go it alone in the face of the organized competition of postwar cooking, water heating, refrigeration and heating business.

The AGA claims that in 1943 the total amount spent for advertising competitive electrical appliances in national magazines was 15 times the money spent by the gas industry. That's city gas they are talking about. Probably the amount spent in advertising LP-Gas was so small it couldn't even be discovered.

We believe the game is going to be fast and the going tough in the postwar battle between gas and electricity. If LP-Gas tries to carry the burden of its promotion alone it bids fair to be lost in the shuffle. That is why we urge and reiterate the recommendation that the AGA and the LP-Gas Association should be made to see that the best interests of the members of both organizations lie in closer cooperation than has existed in the past. Particularly with a new advertising program breaking, it is essential that this cooperation be translated into tangible terms.

That means cash support of the campaign by LP-Gas money, and adequate copy recognition of LP-Gas in every AGA advertisement that is prepared.

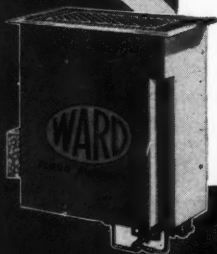
There's an IMPORTANT place for the

# WARD FLOOR FURNACE

in your Post-War merchandising program

When the war ends, there's going to be a tremendous demand for unit-type floor furnaces. Countless new single story homes, as well as thousands of existing dwellings, will require this low-first-cost, low-operating-cost equipment.

For 35 years, the Ward Heater Company has specialized in gas heating equipment. The Ward Floor Furnace has earned a nationwide reputation for advanced engineering, precision manufacture and quality products. And *that* spells *consumer acceptance!*



*Ward Heater Company*

1800 W. WASHINGTON BLVD., LOS ANGELES, CALIFORNIA

## Introduction

By C. C. TURNER

*Special Representative,  
Butane-Propane News*

FOR over two years those of us who have been following the Bottled Gas Manual\* have been laying the foundation for greater fields of endeavor in the liquefied petroleum gas industry. Perhaps, because this Manual dealt chiefly with fundamentals and their application to domestic problems, or because of our intimate association with LP-Gases in such applications, we have come to look upon our field as bounded by the limitations of the home and have failed to appreciate our opportunity for greater usefulness.

Lest we become confirmed in such heresy let us look at the facts. It is estimated that the sale of LP-Gases in 1943, exclusive of those for chemical and gas manufacturing, totalled 596† million gallons. Of this vast amount 350 million gallons were used for domestic purposes, leaving 246 million gallons, or 41.2%, which was used for industrial and miscellaneous use. If we include 39 million gallons

THE FIELD for commercial and industrial applications of LP-Gas is vast. The demands of war industries for propane and butane have helped to awaken many dealers to the opportunities that exist now and that will exist later, but for most part the industry has neglected to capitalize upon these large, potential loads in numerous localities.



C. C. TURNER

Mr. Turner, in the series of articles that begins this month in BUTANE-PROPANE News, will discuss applications in these broad fields. He will show where this business is to be had; how it can be obtained

in competition with other fuels, and the proper kinds of installations to make. As a foundation to what will later appear from month to month, the accompanying first chapter is very important. Those who followed Mr. Turner's series that ran in this magazine for more than 2½ years entitled, "The Bottled Gas Manual," will look with keen anticipation to every forthcoming chapter.—Editor.

used for gas manufacturing and several more million gallons\*\* used for chemical manufacturing, the percentage of the total marketed production for industrial and miscellaneous purposes would exceed 50% by a comfortable margin.

This does not tell us all of the

\* Published by BUTANE-PROPANE News, 1709 West Eighth St., Los Angeles, Cal.

† Based upon preliminary estimates.

\*\* These figures not released because of wartime restrictions.

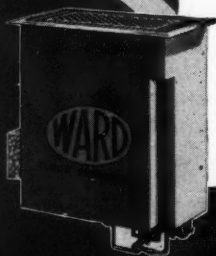
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THE FIELD for commercial and industrial applications of LP-Gas is vast. The demands of war industries for propane and butane have helped to awaken many dealers to the opportunities that exist now and that will exist later, but for most part the industry has neglected to capitalize upon these large, potential loads in numerous localities.



C. C. TURNER

Mr. Turner, in the series of articles that begins this month in BUTANE-PROPANE News, will discuss applications in these broad fields. He will show where this business is to be had; how it can be obtained in competition with other fuels, and the proper kinds of installations to make. As a foundation to what will later appear from month to month, the accompanying first chapter is very important. Those who followed Mr. Turner's series that ran in this magazine for more than 2½ years entitled, "The Bottled Gas Manual," will look with keen anticipation to every forthcoming chapter.—Editor.

used for gas manufacturing and several more million gallons\*\* used for chemical manufacturing, the percentage of the total marketed production for industrial and miscellaneous purposes would exceed 50% by a comfortable margin.

This does not tell us all of the

\* Published by BUTANE-PROPANE News, 1709 West Eighth St., Los Angeles, Cal.

† Based upon preliminary estimates.

\*\* These figures not released because of wartime restrictions.

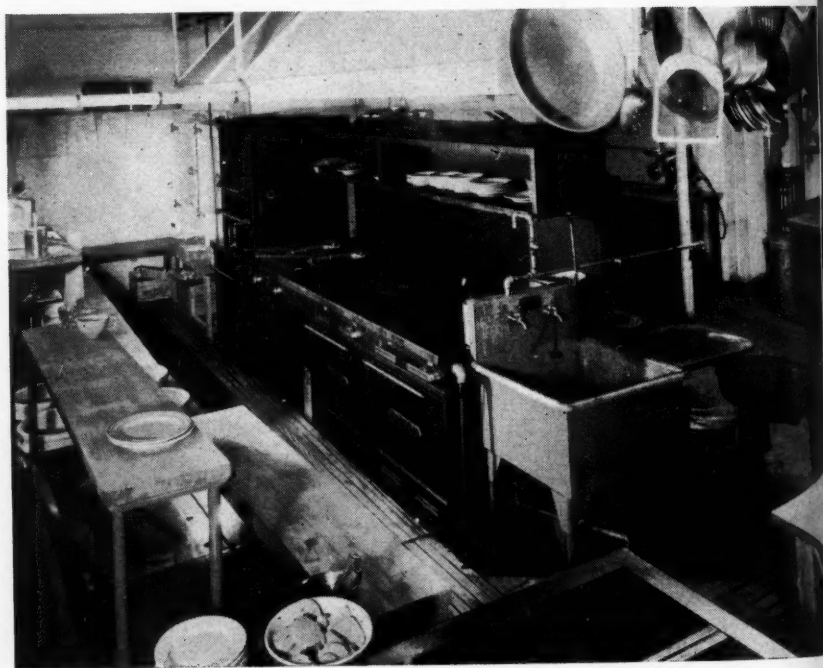


## Commercial Set-ups



**ABOVE:** A small-town baker finds propane an ideal fuel.

**BELOW:** A well-equipped commercial kitchen that uses Gas exclusively.



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story. Because we have followed the lines of least resistance we have scarcely scratched the surface of the commercial and industrial fields. Then again, the attitude of many operators has been to look at percentages of profit rather than net profits on volume sales.

### Easier Profits From Large Volume

Let me illustrate this by an actual happening. A certain distributor, selling approximately 100,000 pounds of propane per year to domestic users, refused to accept a large commercial account because it would net him but  $\frac{1}{2}$ c per pound. His more enlightened competitor took it on, arranged for the manufacturer to assume the equipment investment and attend to all details pertaining to transportation. That competitor now sits in his easy chair, makes one call per month on the manufacturer to collect his bill and to hobnob with him and his employees. The account has grown to 480,000 pounds per year, which, at  $\frac{1}{2}$ c net profit per pound, pays \$2400. I doubt if the distributor who turned this account down makes that amount of money on his 100,000 pounds of business per year, dribbling it out in small quantities, even though his percentage of net profit is greater.

If we are not volume-minded, we should not enter into the commercial or industrial fields. Of course, if one prefers to drift along there is a comfortable living in the domestic fuel field, but because it requires less knowledge of LP-Gases than commercial and industrial applications you will find more competition in it. The big money lies in

the volume business which these larger applications offer, even though the per unit profit is much smaller. The great meat packing business makes millions of dollars yearly on a profit of  $\frac{1}{8}$ th of a cent a pound. The jobber of many products enjoys a comfortable existence on a gross profit of 10% while many of his dealers starve to death on a gross profit of 40%. America is a land of big things, done in a big way, and the man who prefers to do a little business on a large margin of profit is out of tune with its spirit.

Let's return to that 246 million gallons of LP-Gases used for industrial or miscellaneous purposes. This would make quite a sizeable puddle in anybody's back yard, and it isn't to be considered trifling when transformed into terms of energy. Ask the coal or oil dealer how he would like to sell fuel to create 546,666,666 horsepower-hours,\* or ask the electric tycoon if he would like to acquire a load of 7,209,847,596 kilowatt-hours!

This puddle is increasing in size from year to year. It increased 22.5% in 1943 under wartime restrictions. The domestic field is still far from the saturation point, but the commercial and industrial fields are even farther removed, and the day is not far distant when they will exceed in volume that which goes into American homes. For this reason the LP-Gas operator can ill afford to pass up the opportunities for commercial and industrial ap-

\* Based on round figures of 100,000 Btu. per gallon of LP-Gas and 45,000 Btu. input necessary to produce one horsepower-hour.

plications in his field of endeavor unless he is content figuratively to stay home on the farm while the rest of the boys go to town!

### Manufacturers Will Cooperate

There are those who have had an unfortunate experience in an industrial or commercial LP-Gas installation, for which reason they condemn all such applications and steer clear of them. Most of such failures are due to ignorance of our product. The others in all probability have occurred because of flagrant disregard for the simple ABC's on which successful business is founded. Lack of knowledge of our product is fast becoming inexcusable. Much information is now available for those who will read, study, and think. Volumes are in the process of development, and most gas producers as well as equipment and appliance manufacturers welcome the opportunity of passing along information to those who have a constructive interest.

Here follows Rule No. 1 in the endeavor for commercial and industrial business: *If you do not have the needed information for any application of LP-Gases do not hesitate to ask for it.* You need not fear to place yourself in the hands of any reliable appliance or equipment manufacturer who specializes in this field. Most of them employ engineers of recognized ability and repute, and such men are not hesitant to advise against any use of their product which might prove detrimental to their company or the industry. While they have merchandise to sell, they also have their own reputations as well as their employers' to maintain.

Rule No. 2 is that you shall base your endeavors upon the ABC's of business. They are the foundation upon which all successful enterprises are built. To the hard-headed business man they are the immutable Ten Commandments graven in stone to guide him on his journey through the wilderness of competition to the Promised Land of Success. Let us pause long enough to consider these basic principles by which he is guided.

**The ABC's of Business.** A. The fundamental purpose of all business is the making of profits for the investor.

B. No additional investment in business is justified unless it results in increased profits.

C. Innovations in merchandising methods and processes of production are to be avoided unless there is convincing proof that they will result in increased profits.

Note this triple repetition of the word "profits." In dealing with the business man or industrialist we must always keep in mind this matter of *his profits*.

**Ways to Increase Profits.** The trail which leads to increased profits may be but poorly marked and lead through devious ways, but it is one upon which we must be adept at guiding the business man or industrialist if we wish for his business.

Before we direct our sales appeal to the business man we should first familiarize ourselves with his product and gain some insight into the business headaches which afflict him. It is not sufficient for us to procure the contract and make the installations. We must be sure that

once installed it will stay; otherwise, we are courting a black eye for ourselves and for our industry. We cannot talk intelligently or convincingly, nor can we logically recommend our products for consideration if we know nothing about that to which it is to be applied.

### Don't Try to Bluff

Quite often I have run up against proposed LP-Gas installations for industrial purposes of which I have been entirely ignorant. Experience has taught me that the best policy in such an instance is to be entirely straightforward and admit my ignorance. My approach to the owner of a candy manufacturing plant would be somewhat as follows: "Mr. Owner, I know nothing about the manufacture of your product but I have had considerable experience in the application of LP-Gases to commercial cooking processes. Perhaps there might be a heat application borrowed from some other type of business that could speed up production or reduce operating costs. May I have the privilege of looking around your plant and reporting back to you if such an idea occurs to me?"

The chances are more than even that he, being a wide-awake business man, may welcome the suggestion.

You will, of course, frame your approach in words of your own which may be far better than the ones which I have suggested, but let me caution you in one respect. You may have in mind improvements in the manufacturer's product but never mention them as such lest you offend his ego. Many a lunch room of the greasy spoon

type is the pride and joy of its proprietor. He probably thinks that his greasy, indigestible "sinkers" are the best ever, but he will welcome an "innovation" which will "increase customer acceptance." He will welcome it, first because an "innovation" suggests something new and enables him to acquire an edge upon his competitors. Second, increased customer acceptance implies increased sales, hence increased profits. Another word of caution is in order. If you do indulge in flattery, use it as if it were rationed and apply it sparingly.

**Our Own Mental Attitude.** This must be that of questioning ourselves as to how we may increase profits for our commercial and industrial prospects. Let us summarize some such questions:

1. Can I increase the prospect's profits by reducing operating costs through the application of LP-Gas? There are many ways in which we can do this. Here are a few:

- A. By actual saving in fuel cost.
- B. By reducing wear and tear on machinery.
- C. By short-cuts in production processes.
- D. By speeding up production due to improvement in employee morale.
- E. By saving space occupied by more cumbersome equipment used in the application of heat by other fuels.
- F. By making possible the use of less expensive materials in manufacturing the same product.
- G. By reducing the amount of capital investment necessary in machines and equipment.

H. By reducing labor and materials used in maintaining and operating the equipment and machines through which heat is applied to goods in the process of manufacture.

2. Will the installation of LP-Gas increase profits by enlarging the consumer demand? Some ways are:

A. By improving the appearance of the product.

B. By improving its quality.

C. By giving it additional, desirable features.

3. Will "innovations" (improvements) in the product made possible by the application of LP-Gas permit a higher price to be charged for it?

4. Can the cost of an LP-Gas installation be paid for out of increased profits in a comparatively short period of time?

5. Will the installation of LP-Gas be entirely practical?

6. Will the installation of LP-Gas be safe when fire and explosion hazards incidental to manufacturing processes are considered?

**Our Conduct Inside the Plant.** Once having gained access to a plant, it is not sufficient that we should only concern ourselves with the particular applications of heat which we have in mind. We should start at the point where raw materials enter the plant and follow each step through carefully until we come to the finished product. We should at least gain a general knowledge of the product by so doing and pick up a smattering of the trade vernacular so that we may more easily converse with the employees and the management. If we do not understand certain steps in a general way we should ask questions.

Perhaps by gaining a general knowledge of the processes of manufacture we may find several places where LP-Gases may be used to advantage, or it may be that the over-all picture may show us that while our product might be used if but one process were considered, it might create difficulties in other steps of manufacture.

Watch your step and keep clear of moving machinery. It is best not to wear an overcoat or other loose fitting clothing for safety reasons. Interfere with the help and processes as little as possible. Avoid unnecessary conversation, but do not be a prig. Do not convey the idea that you are the source of all knowledge. Remember, these factory workers are the people who must handle your product and they can sabotage it effectively if they don't like you. Even though you think that you know much more about certain matters than they do, assume the role of pupil and let them be the teachers. The chances are more than even that you will learn something from them.

**Assembling the Facts.** Our tour of inspection ended, we should not rush immediately into the manager's office and say, "We've got the cure-all for your ills!", even though the application of LP-Gas which we have in mind is a simple one. Rather, one's approach to the manager should be, "Mr. Blank, I've gained some ideas as to how we might possibly be of service to you, but before I present them I would like to check my figures and make sure that what I have to suggest will be of advantage to you. Could

I do this and submit my report to you on Thursday?"

The average manager will appreciate this suggestion. It not only shows consideration on your part for his valuable time, but it implies that you are giving careful thought to his problems. It buries the suspicion that you are a high pressure salesman out to sell your product regardless of its worth to him. It convinces him that you are thorough, and that you do things in a business-like and systematic way. It also gives you time for thought and study, to check your conclusions or to change them, and to prepare a telling sales tool in the form of a proposal and specifications.

#### Study Problem Before Quoting

Do not rush to your office and dash off an ill-prepared proposal upon the spur of the moment. It is better first to hunt out a modern encyclopedia and gain a general knowledge of the business for which you are figuring the job. Do some specialized reading on the subject. Search through all available catalogs which pertain to the equipment which it will be necessary to install and select that which is best adapted to the problem at hand. Do some quiet thinking. Check and re-check your figures, not once or twice, but many times. Check your recommendations by the six questions which you must answer to the satisfaction of a hard-headed business man. Anticipate the arguments which your prospect may bring against the things which you have to propose. Make an outline of what you wish to say, paying particular attention

to the thoughts which you wish to convey by inference. Weigh each word that you plan to use in your proposal.

**Putting Your Recommendations in Writing.** Your recommendations should consist of two distinct sections, the proposal, and specifications. The proposal may be an effective sales tool or a sure way to lose business, depending upon its arrangement and phraseology. The proposal is usually in letter form and covers the following points, in sequence:

- A. What you propose to do.
- B. Why you propose to do it.
- C. The advantages to the prospect of that which you propose to do.
- D. The cost to the prospect of that which you propose to do.
- E. The comparison of expense of that which you propose to do to the results which might be obtained.

There are certain things you should studiously avoid in drawing up a proposal. No. 1—Drop the word "guarantee" from your vocabulary. You may be convinced that you can save your prospect on his fuel costs but you mustn't "guarantee" it for there are too many variables which may be introduced to upset your calculations.

Don't say, "We guarantee that the changes suggested will result in a 20% saving in fuel costs," for that is a definite statement that can bind your company. "We" implies that you are a part of that company authorized to "guarantee" it.

It is better not to say even, "We believe that the changes suggested will result in a 20% saving in fuel costs."

## COMMERCIAL, INDUSTRIAL APPLICATIONS

This form is safest and best: "It is my personal opinion that if my recommendations are put into effect, if operating conditions remain as they were at the time of my inspection of your plant, and if due care is taken by your employees to observe all economies, a saving in your fuel costs up to 20% may be possible."

You have guarded against changes in operating conditions in the prospect's factory, you have put the burden of economical operation upon his employees and you have held out to him the possibility that if his organization is cooperative he *may* attain an economy of up to 20% of his fuel costs. This is *not* evasiveness, it is just plain self-protection!

There is another pitfall to avoid. It is dangerous to enter into a fuel contract over any considerable period of time unless a provision is included in it to cover you in event of any increase in price to you by your supplier, or due to taxes which may be levied or increases in transportation costs.

**Assembling the Specifications.** The purpose of the specification section of your recommendation is to support the proposal and to supply additional information. If possible it should be fastened into an attractive cover and should contain the following information in sequence:

A. Figures in understandable form supporting the cost of installation as quoted in the proposal.

B. Illustrations of the suggested equipment. These may be sketches or they may be illustrations cut out of

catalogs and pasted onto white sheets of standard typewriter paper.

C. Blueprints of the proposed layout if the size of the job warrants them.

D. A neat illustration of the gas equipment which you propose to install.

E. Prospect's file copy of your proposed fuel price schedule. Be sure that this bears words to the effect that it is subject to change without notice in accordance with the terms of your proposal.

F. Prospect's file copy of your standard fuel and equipment contract.

G. Prospect's file copy of proposal acceptance form.

Included inside the back cover but not bound into the assembly there should be the copy of the fuel and equipment contract and the copy of the proposal acceptance form which you wish for the prospect to sign and return to you.

**Presentation of Your Recommendation.** If possible, it is best for you to present these in person on the date agreed, or to have a competent representative present them. Your prospect may wish to run through these with you and discuss or amend certain features. Do not, however, make evident your desire for this to happen lest it be construed as a high pressure effort on your part.

**A Planned Procedure Pays.** All of the foregoing may sound a bit complicated, and perhaps it is in comparison to the slipshod way of trying to hammer home a sale at the time of the first contact, but I know from actual experience that it pays, and that it saves a lot of



Heavy duty commercial range in a Mid-western restaurant.

headaches to have agreements correctly recorded in black and white. I am personally acquainted with the experience of one company which operated in a haphazard manner when procuring commercial and industrial business and averaged only 14% closures of the jobs upon which they bid. When a plan was formulated such as outlined, their closures jumped to 62%! They landed many jobs on competitive bidding at prices higher than those quoted by their competitors, for, to use the words of one prospect, "You fellows go after things in a business-like way and seem to know what you are talking about!"

The commercial business of that distributor has jumped to the point where he now employs a skilled engineer, a draftsman, and a trained secretary who do nothing but prepare proposals and specifications. You can see that a planned procedure pays!

**A Moral Obligation.** I have purposely withheld mentioning of

your moral obligation until the end of this chapter in order that the thought may remain with you. When the owner of any business permits you to go through his establishment he is taking you into his confidence. There is likelihood that he may use some secret processes which he is not anxious to pass on to his competitor. *You are honor-bound not to reveal such things.*

Chapter 2 on Commercial Applications will appear next month.

### Make Reservations Early For Southern Meeting

Shortage of hotel space makes it necessary that guests to the Southern Section meeting make reservations early. Requests should be made of Sam Fowlkes, secretary of the Housing Bureau, P. O. Box 1460, New Orleans 5, La.

The New Orleans convention will be held Sept 11-12 at the Roosevelt hotel.

# Tanks on Hand, Customers Waiting, But Priorities Hard to Get

**T**RAVELERS on U. S. Highway 81, as they pass through Hennessey, Okla., often stop and gaze in wonder at 17 butane tanks lined up on a vacant lot opposite the Hockaday Hardware Co. store—that is, if they know anything about LP-Gas or have used it.

Before the war these tanks would scarcely have rated a passing glance. Then this equipment could have been purchased with a mere nod of the head plus a down payment. The Hockaday firm is just as anxious as before Pearl Harbor to sell these tanks and has about 15 prospective customers lined up for each one of them, but here is the bug under the chip—Hennessey lies in an agricultural area with no war or defense plant workers; therefore, few can qualify under present priorities to purchase such equipment.

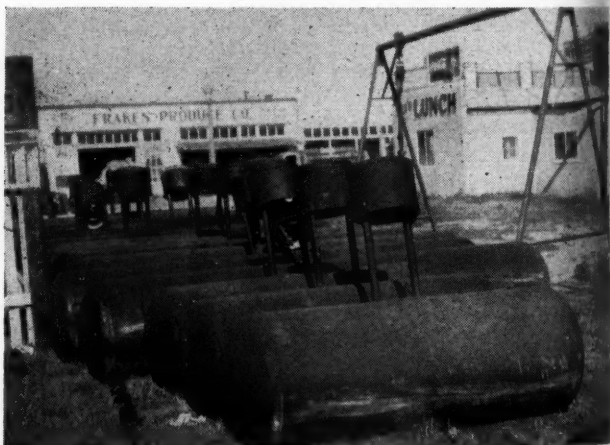
But R. E. Watson, secretary of the Hennessey Hockaday store, who also

By O. D. HALL

is in charge of LP-Gas equipment sales and service, has no fears that he will not eventually get rid of these tanks. In fact, he occasionally finds a customer who can qualify to purchase one of them and he knows that they will go like hot cakes when the war is over.

He recently installed one of the larger of these tanks (they rate 230 gals. and 448 gals., water capacity, each), in the Catholic church at Goltz. Its old, delapidated basement coal-wood furnace had broken down completely at that time and there was a serious shortage of those fuels in that section of the state. So the church authorities purchased an LP-Gas system from the Hockaday Hardware Co., and it has been in service long enough to prove that it is very efficient and satisfactory. A large

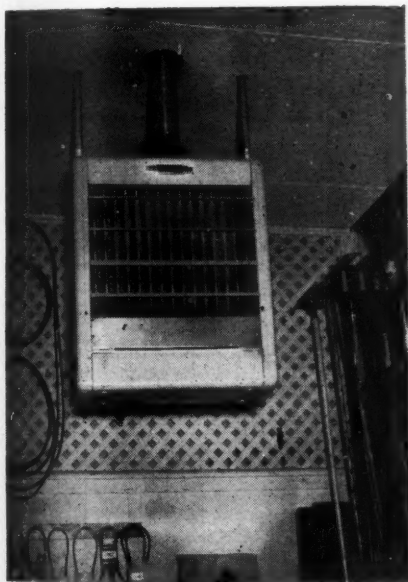
▲  
These butane tanks on the highway in Hennessey, Okla., create much interest for passers-by, many of whom wish they had high enough priorities to obtain one.



200,000 Btu. blower-type, suspended Humphrey heating unit was placed on a platform 12 ft. above the floor of the church.

A similar installation was made by the Hockaday firm in a Protestant church 14 miles northwest of Hennessey. This was a 125,000 Btu. blower-type Humphrey unit.

A large number of persons can qualify for LP-Gas ranges, heaters, floor furnaces, hot water heaters and chicken brooders in the territory served by Hockaday, extending 75 miles north and west of Hennessey in Oklahoma and into southern Kansas. The firm does a nice business in oil, natural gas and LP-Gas chicken brooders.



Suspended blower-type LP-Gas heaters such as this one, only larger, are keeping worshippers warm in Catholic and Protestant churches near Hennessey, Okla. The one shown heats the Hockaday Hardware Co., store in Hennessey.

R. E. Watson, manager of the Hennessey store, is the father of Richard Watson. Mr. Watson, Sr., devotes most of his attention to the hardware store which bears evidence of progressiveness and modernity, while his son sells as much LP-Gas equipment as is possible under present conditions, and takes care of the service end of the business.

### Consumer May Now Sell New Stoves Back to Dealers

A consumer may sell or return new stoves to a dealer, distributor or manufacturer. Regulations prior to June 26 provide that a consumer could transfer a new stove only to another consumer.

If a consumer returns a stove to a dealer, distributor or manufacturer or cancels an order for a stove before it is delivered, the consumer's ration certificate must be returned or the dealer or distributor must give the consumer a receipt setting forth the date of the transfer, the consumer's name and address, his own name and address, and the type of stove.

Where a consumer returns a stove or cancels an order or contract for the sale of a stove before he gets the stove and his certificate is not returned to him, if he is still eligible he may apply to his board for a new certificate. He must present the receipt from the dealer or distributor when he applies.

Whether a stove is transferred or returned a certificate for the type of stove must be surrendered by the dealer or distributor to his local War Price and Rationing Board. He may not obtain for inventory another stove of the type acquired until this has been done.

The new order is contained in Amendment 9 to Ration Order 9A.

Table 2. Marketed Production of Liquefied Petroleum Gases: by Uses, Methods of Transportation and Regional Distribution, 1942-1943.

(Thousands of Gallons)

TOTAL—ALL GASES

	1943*			Per cent of total	1942			Per cent of total
	Bulk	Cylinder	Total		Bulk	Cylinder	Total	
By uses:								
Domestic: .....	271,936	67,444	339,380	50.3	238,972	60,587	299,559	51.2
Pacific Coast area.....	39,286	14,660	53,946	8.0	29,598	12,374	41,972	7.2
All other areas.....	232,650	52,784	285,434	42.3	209,374	48,213	257,587	44.0
Gas manufacturing: ....	37,519	...	37,519	5.6	31,355	11	31,366	5.4
Pacific Coast area.....	15,060	...	15,060	2.2	17,770	...	17,770	3.1
All other areas.....	22,459	...	22,459	3.4	13,585	11	13,596	2.3
Industrial fuel: .....	142,826	6,603	149,429	22.1	108,393	5,739	114,132	19.5
Pacific Coast area. ....	11,556	2,591	14,147	2.1	6,872	2,120	8,992	1.5
All other areas.....	131,270	4,012	135,282	20.0	101,521	2,619	105,140	18.0
Chemical manufacturing: .....	55,320	36	55,356	8.2	52,904	134	53,038	9.0
Pacific Coast area.....	...	...	...	...	...	...	...	...
All other areas.....	55,320	36	55,356	8.2	52,904	134	53,038	9.0
Internal-combustion-								
engine fuel .....	86,162	1,672	87,834	13.0	81,029	1,427	82,456	14.1
Pacific Coast area.....	46,425	1,371	47,796	7.1	52,225	1,173	53,398	9.1
All other areas.....	39,737	301	40,038	5.9	28,804	254	29,058	5.0
All other uses: .....	5,700	15	5,715	.8	4,851	38	4,889	0.8
Pacific Coast area.....	5,652	...	5,652	.8	4,773	...	4,773	0.8
All other areas.....	48	15	63	...	78	38	116	...
Total sales: .....	599,463	75,770	675,233	100.0	517,504	67,936	585,440	100.0
Pacific Coast area.....	117,979	18,622	136,601	20.2	111,238	15,667	126,905	21.7
All other areas.....	481,484	57,148	538,632	79.8	406,266	52,269	458,535	78.3
Percent of total.....	88.8	11.2	100.0	...	88.4	11.6	100.0	...

\* Figures for 1943 subject to revision.

# LP-Gas Sales Up 15% in 1943

## In Spite of War Restrictions

THE RATE of expansion in sales of liquefied petroleum gases showed a further shrinkage in 1943 when deliveries of 675,233,000 gals. were only 15% above the 1942 total of 585,440,000, compared with increases of 27% in 1942 and 48% in 1941, according to a survey made by the Bureau of Mines, United States Department of the Interior.\*

Adverse market factors, evident in 1941 and 1942, such as inadequate transportation, shortage of general equipment for handling and use, and diversion of increasing quantities for consumption as raw material principally for the manufacture of rubber and high octane motor fuel, were further intensified in 1943 and prevented distributors from supplying the po-

tential demand in full. (See Tables 1 and 2 for detail figures.)

The respective percentage increases for the principal uses of liquefied petroleum gases varied widely in 1943 compared with 1942. Sales of liquefied petroleum gases for industrial fuel showed a greater percentage gain in 1943 than in 1942, while increases for other uses in 1943 (except the minor "all other uses") were below the 1942 rate.

Deliveries of liquefied petroleum gases to industrial plants increased by 31% in 1943 (149,429,000 gals. in 1943 compared with 114,132,000 in 1942) or double the 16% gain reported for 1942. The volume of liquefied petroleum gases credited to gas manufacturing companies of 37,519,000 gals. in 1943 was 20% above the 1942 total of 31,366,000 gals.—an increment which com-

\*Prepared by A. T. Coumbe, Petroleum Economics Division, Economics and Statistics Service.

Table 1. Sales of Liquefied Petroleum Gases in the United States, 1937-43.  
(Thousands of Gallons)

Year	Butane	Propane	Butane-Propane		Pentane	Quantity	Total Percentage increase over previous year
			Mixtures				
1937.....	45,399	46,474	46,694		2,833	141,400	32.6
1938.....	52,768	54,130	56,050		2,253	165,201	16.8
1939.....	71,351	79,323	69,020		3,886	223,580	35.3
1940.....	77,056	109,216	123,348		3,836	313,456	40.2
1941.....	112,244	126,969	219,252		4,387	462,852	47.7
1942.....	128,560	150,511	301,917		4,452	585,440	26.5
1943 <sup>1</sup> ....	140,122	218,273	312,683		4,155	675,233	15.3

<sup>1</sup> Subject to revision.

pared with 24% expansion in 1942.

The annual growth in sales of liquefied petroleum gases for domestic use has contracted sharply from a 65% gain in 1941 to 36% in 1942 and to only 13% in 1943—owing to supply, equipment, and transportation difficulties. Reported deliveries of liquefied petroleum gases for domestic fuel were 339,380,000 gals. in 1943 against 299,559,000 in 1942.

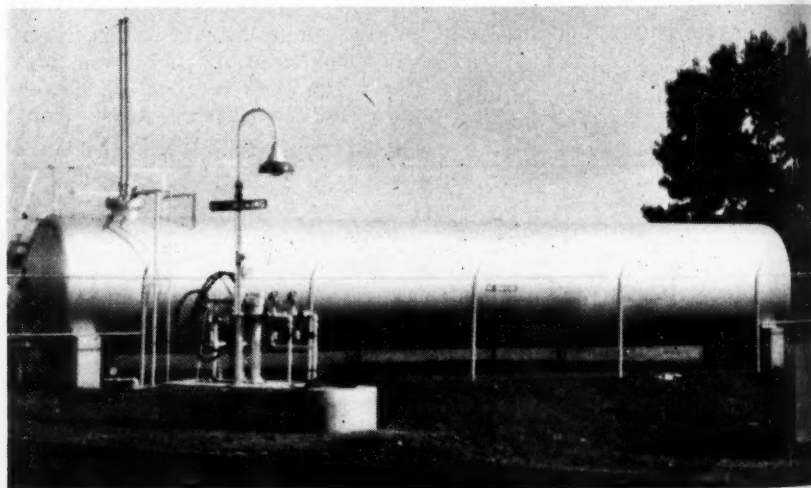
Limited supplies and restrictions in some areas are reflected in the smaller increase in use of liquefied petroleum gases as fuel for internal-combustion engines—87,834,000 gals. in 1943 compared with 82,456,000 in 1942—a gain of 7% in contrast to a 23% expansion in 1942 over 1941.

Purchases of liquefied petroleum gases for raw material by chemical plants of 55,356,000 gals. in 1943 were only 4% above 1942 re-

quirements and compare with a 20% gain in this particular demand recorded for 1942.

The percentage shares of the different gases making up total sales of liquefied petroleum gases changed somewhat in 1943 compared with 1942. Liquefied gases reported as butane dropped from 22% of the total in 1942 to 21% in 1943, as relatively more butane was diverted for raw material to manufacturers of motor fuel and rubber. The propane item for 1943 increased to 32% of total sales compared with 26% in 1942, a gain reflecting a shift from butane and butane-propane mixtures to propane as an industrial fuel. The rise in the propane proportion of total sales of liquefied petroleum gases was counterbalanced by a similar percentage loss for butane-propane mixtures, as "mixtures" dropped from 52% of 1942 deliveries to 46% in 1943. Pentane made up less than 1% of the 1943 total.

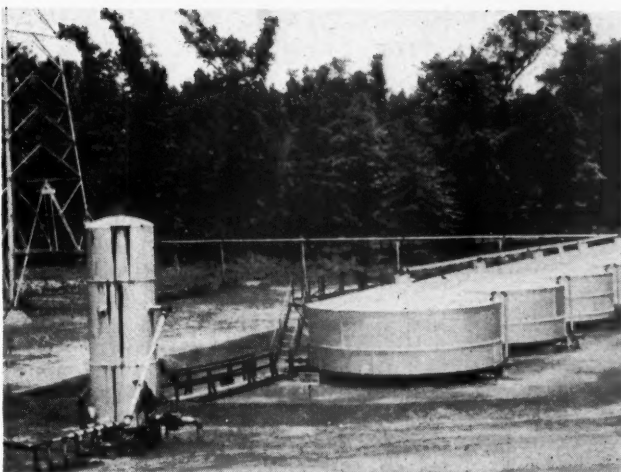
The rising demand for butane for



LP-Gas storage and fueling equipment, Union Pacific R. R.

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use as raw material is indicated in the declining rate of increase in sales for fuel purposes. Deliveries of butane in 1943 of 140,122,000 gals. were 9% above the 1942 total of 128,560,000—a gain compared with increments of 15% in 1942 and 46% in 1941.

Equipment for handling butane was not restricted in industrial and chemical plants and established gas manufacturing companies, and consequently sales of butane to such establishments showed a gain in 1943 over 1942. Domestic users could not obtain new equipment for the consumption of butane, and its diversion for use as motor fuel was greatly restricted, so deliveries of butane under these headings showed declines in 1943.

Gas companies, using butane as "standby" gas, purchased 21,829,000 gals. of butane in 1943, a 76% gain over the 1942 quantity of 12,419,000 gals. It is believed that a part of this rise in the use of butane reflects the effort on the behalf of gas companies to supply communities expanding under war conditions.

The use of butane as industrial fuel, which accounts for about 40% of the total, increased by 11% from 50,495,000 gals. in 1942 to 56,143,000 in 1943.

Chemical plants do not use relatively large quantities of butane as raw material; however, their purchases of 7,972,000 gals. in 1943 were 52% above the 1942 total.

The use of butane as motor fuel has declined from 18,799,000 gals. in 1941 to 14,870,000 in 1942 and to 9,895,000 in 1943.

A shift to propane for fuel purposes in order to release butane for raw material is evident in a 45% increase in propane sales in 1943—218,273,000 gals. in 1943 and 150,511,000 in 1942—compared with a 19% expansion in 1942 over 1941. The totals for all principal uses of propane were larger in 1943 than in 1942, except purchases by chemical companies, which declined.

Propane is still predominantly a domestic fuel; however, the proportion of total deliveries reported for domestic use has dropped from 77%

of the total in 1941 to 75% in 1942 and down to 57% in 1943. The declining rate of growth in the use of propane for domestic purposes under adverse war conditions is indicated in another way—namely, the smaller percentage gains in sales in recent years, 42% in 1941, 16% in 1942, and 10% in 1943.

Gas companies do not buy relatively large quantities of propane; however, their purchases increased from 4,957,000 gals. in 1942 to 8,117,000 in 1943—a 64% gain in contrast with a 26% decline in 1942 compared with 1941 requirements.

Propane used as an industrial fuel increased by nearly three-fold in 1943 as manufacturers turned to this more available gas in place of butane. Deliveries of propane to industrial plants of 73,698,000 gals. in 1943 were 258% above the 1942 total of 20,601,000 gals. Furthermore the volume of propane reported sold as industrial fuel was above the butane total for the first time in 1943.

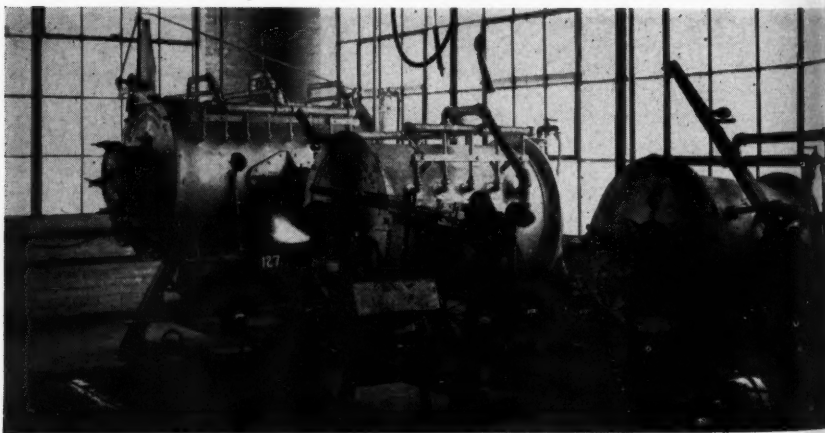
The quantity of propane used as raw material by chemical plants is not currently important, and the total

declined to 4,455,000 gals. in 1943 compared with 5,850,000 gals. in 1942.

Increasing sales of propane for internal-combustion-engine fuel have been reported in recent years as the supply of butane has been shifted to other uses. Propane credited as motor fuel has expanded from 1,631,000 gals. in 1941 to 3,112,000 in 1942 and to 4,592,000 in 1943.

Sales of butane-propane mixtures of 312,683,000 gals. in 1943 were only slightly above the 1942 total of 301,917,000 gals. The annual percentage expansion in butane-propane deliveries, similarly as with butane, has diminished noticeably in recent years—shrinking from a gain of 78% in 1941 over 1940 to a gain of 38% in 1942 and down to an increment of only 4% in 1943.

Sales of butane-mixtures for domestic use increased by 21% from 140,516,000 gals. in 1942 to 169,818,000 in 1943. Butane-propane mixtures, like propane, are predominantly a domestic fuel; however, the proportion of the total reported for domestic use is expanding for "mixtures," whereas for propane relatively lesser quantities



LP-Gas carburizing furnaces in Michigan industrial plant.

ties of the total are going for household consumption. Forty percent of the butane-propane mixtures was delivered for domestic fuel in 1941, 47% in 1942, and 54% in 1943.

Gas-manufacturing companies purchased substantially more butane and propane in 1943 but less of the "mixtures," the quantity of the latter declining by 46% from 13,961,000 gals. in 1942 to 7,532,000 in 1943.

The strong industrial turn to propane for fuel under present conditions is the opposite from the pronounced drop in deliveries of butane-propane mixtures for this purpose, the quantity shrinking by 55% from 43,011,000 gals. in 1942 to 19,474,000 in 1943.

### Mixtures Used Chemically

Large amounts of butane-propane mixtures are used as raw material by chemical plants; however, their requirements have remained fairly constant for several years—39,243,000 gals. in 1941, 38,325,000 in 1942, and 39,584,000 in 1943.

As supplies of butane have tightened because of diversions to other channels, the use of butane-propane mixtures for internal combustion engine fuel has mounted steadily—the 1943 total of 73,344,000 gals. is 14% above the 1942 demand of 64,470,000 gals.

Sales of pentane, which are relatively unimportant in volume, declined by 7% from 4,452,000 gals. in 1942 to 4,155,000 in 1943. Most of the pentane is delivered to chemical plants for use as raw material—the quantity declining from 3,607,000 gals. in 1942 to 3,345,000 in 1943. Some pentane is consumed as domestic fuel; however, the total has diminished from 1,128,000 gals. in 1941 to 766,000 in 1942 and to 637,000 in 1943.

Unusual factors under the stress of war conditions have forced some changes in the proportions of the dif-

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Cash-and-carry  
cylinders  
are popular.  
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ferent gases sold for principal uses. Butane which made up about 16% of the domestic demand item in 1940 has gradually decreased to 13% of the total in 1943. Propane as a domestic fuel has been replaced by butane-propane mixtures to some extent. Propane delivered as domestic fuel, making up over 50% of the total demand in 1940 constituted only 37% of the domestic-use item in 1943, while "mixtures" have expanded from one-third of the domestic total in 1940 to one-half in 1943.

Purchases of butane by gas companies dropped from 54% of their requirements in 1940 to 40% in 1942. However, this trend was reversed in 1943, when the proportion of butane in gas company purchases jumped to 58%. The propane share in the liquefied petroleum gases credited to gas companies also followed a trend similar to that of butane, dropping from 26% of the total in 1940 to 16% in 1942 and then up to 22% in 1943. Sales of butane-propane mixtures to gas companies followed a reverse pattern from that of butane and propane, increasing from 21% of the total requirements in 1940 to 45% in 1942 and then a shrinkage to 20% of the gas company item in 1943, as this industry turned strongly to butane and propane for "standby" gas.

Butane with its higher Btu. content is the better fuel for industrial

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se; however, manufacturers have had to turn to propane under current conditions. Butane constituted above 77% of the liquefied petroleum gas requirements of manufacturing plants in 1940 and 1941, 44% in 1942, and 38% of the total in 1943. The propane share in the industrial fuel total has fluctuated irregularly from 47% in 1940 to 17% in 1941, 18% in 1942, and then a strong upward turn to 49% of the total for 1943, as manufacturers bought more than three times as much propane as reported for 1942. The percentage of butane-propane mixtures in sales of liquefied petroleum gases to industrial establishments, like that for propane, has changed greatly in recent years—constituting 5% of the total in 1940, 16% in 1941, 38% in 1942, and then down to 13% of total industrial fuel requirements in 1943.

#### Mixtures Used For Engine Fuel

Butane-propane mixtures are used more than the straight butane and propane as fuel for internal combustion engines and satisfied about 77% of the demand in 1940, 70% in 1941, 78% in 1942, and 84% of the motor fuel total in 1943. Butane for engine fuel has declined from 28% of the 1941 requirements to 11% in 1943, as restrictions on its use were put in force. Propane is not used in important volume as fuel for internal combustion engines.

The American Gas Association has cooperated with the Bureau of Mines by supplying the following information concerning the distribution of liquefied petroleum gases by manufactured gas companies in 1943:

"At the end of 1943, liquefied petroleum gas was being delivered through mains to consumers in 219 communities in 32 states by 101 companies supplying 83,320 consumers.

"Butane-air gas with heating value

ranging from 520 to 1300 Btu. per cu.ft. was supplied to 157 communities in 30 states. A mixture of undiluted butane and propane gas with a heating value of 2800 to 3000 Btu. per cu. ft. was supplied to 18 communities in Arizona, California and New Mexico. Undiluted propane gas with a heating value of 2550 Btu. per cu. ft. was supplied to 41 communities in Maryland, Minnesota, Nevada, New Jersey, North Dakota, Virginia and Wisconsin."

The percentage of bulk shipments of liquefied petroleum gases has tended to increase slightly in recent years as cylinders or other small containers have become difficult to obtain. Liquefied petroleum gases handled in bulk totaled 599,463,000 gals. in 1943 and constituted about 89% of all sales compared with 517,504,000 gals. in 1942, or 88% of the annual total. Shipments of liquefied petroleum gases in cylinders increased from 67,936,000 gals. in 1942 to 75,770,000 in 1943.

Sales of liquefied petroleum gases in the Pacific Coast\* area (California, Oregon, Washington, Arizona and Nevada) increased by 8% from 126,905,000 gals. in 1942 to 136,601,000 in 1943. The 1943 total for the Pacific Coast represented 20% of the marketed production of liquefied petroleum gases in 1943 compared with a 22% share in 1942. Deliveries of liquefied petroleum gases reported for "all other areas" totaled 538,632,000 gals. in 1943, a gain of about 18% over the 1942 volume of 458,535,000 gals.

One hundred fifteen petroleum refining and natural gas companies reported their sales of liquefied petroleum gases to the Bureau in 1943 compared with 114 in 1942.

\* The data for the Pacific Coast area appearing in this report were compiled by E. T. Knudsen, Bureau of Mines, Los Angeles, Calif.

## TO BUILD A SOLID BASE FOR POST-WAR SALES...

*Start selling  
Now!*



**I**F YOU EXPECT to expand after the war—I want to increase your profits—now's the time to start the groundwork. Begin by making sure your customers are thoroughly sold on your service and their L-P gas equipment. Then, start telling them about other L-P gas appliances that will be available after the war—appliances like the new and improved L-P gas refrigerators.

Point out how home owners are learning from wartime experience, as never before,

the value of the L-P gas refrigerator's "no moving parts to wear," of its permanent silence. This is interesting to both the people who will have to replace other type refrigerators—and the new-user market, where the experience of friends is always a big factor.

By selling your customers on L-P gas refrigeration today, you'll help stimulate the sale of other L-P gas appliances, too, and build a solid base for stepping off to bigger L-P gas loads after the war.

**"SATISFIED CUSTOMERS TODAY...MEAN MORE PROSPECTS TOMORROW"**

### **SERVEL, Inc.**



**PEACETIME MAKER OF THE SERVEL GAS REFRIGERATOR**



## Background and Objectives

By WALTER H. HOAGLAND\*

Chairman, Technical and Standards Committee, Liquefied  
Petroleum Gas Association

SEVERAL members of the Liquefied Petroleum Gas Association have recommended that our industry at large be advised of the work the Technical and Standards Committee is doing today, as well as what has been done in the past few years. Because of the increasing importance of this committee in the LP-Gas industry, BUTANE-PROPANE News has asked me to prepare a series of articles covering the many LP-Gas technical and standard problems that have come before it, these to be published to advise all concerned of the magnitude of the work which has been done and to review the present problems before the committee at this time, which will be decided in the near future, to further aid Association members.

Many members do not realize



W. H. HOAGLAND

The whole liquefied petroleum gas industry is the beneficiary of many constructive programs instituted by the Liquefied Petroleum Gas Association for its members. Probably no one of the Association's many activities is more influential than the work of the Technical & Standards Committee, which, as its name suggests, makes research into, and endeavors to solve, innumerable technical problems that arise, and which places before the industry the results of its findings.

In his position as chairman of the Technical & Standards Committee, Walter Hoagland has undertaken to recount in BUTANE-PROPANE News the story of what has been accomplished to date and the work yet to be done. The accompanying article, first in the series, presents the background of the committee and its objectives. Succeeding chapters will discuss findings upon many of the most vital questions that concern the industry today.

—Editor.

that this committee has the largest membership of all Association committees, representing every section of the country and type of business operation in the LP-Gas industry. Also, these committee members give freely of their valuable time and money to help work out problems of the industry at large by meeting together three and four times a year to lend their experience for the benefit of all members.

\*Fisher Governor Co., Marshalltown, Iowa.

In August, 1941, George W. Bach, then president of the Association, appointed the following Technical and Standards Committee:

Walter H. Hoagland, Chairman

#### PRODUCERS

M. L. Baker, Standard Oil Co. of Calif., San Francisco.  
F. T. Carpenter, Phillips Petroleum Co., Bartlesville.  
M. G. Farrar, Carbide & Carbon Chemicals Corp., New York.  
Turner C. Smith, General Petroleum Corp., Los Angeles.  
A. H. Menuet, Skelly Oil Co., Kansas City.

#### DISTRIBUTORS OF LP-GAS

L. Abramson, Jr., Petrolane Gas Co., New Orleans.  
Col. G. A. Burrell, Atlantic States Gas Co., New York.  
B. D. Geroy, Illinois Bottled Gas Co., Chicago.  
A. N. Kerr, Imperial Gas Co., Los Angeles.  
J. W. Martin, Lone Star Gas Co., Dallas.  
H. K. Strickler, Protane Corp., Erie.  
W. F. Verkamp, Verkamp Corp., Cincinnati.

#### EQUIPMENT MANUFACTURERS

W. A. Buehler, Buehler Tank & Welding Works, Los Angeles.  
R. E. Cecil, Scaife Co., Oakmont, Pa.  
Herman Merker, Pressed Steel Tank Co., Milwaukee.  
E. L. Mills, Bastian-Blessing Co., Chicago.  
C. L. Parkhill, Parkhill-Wade Co., Los Angeles.  
L. J. White, Southern Steel Co., San Antonio.  
K. R. D. Wolfe, Fisher Governor Co., Marshalltown, Iowa.

Mr. Bach wrote to these new appointees in August, 1941, "This committee, in my opinion, is one of the most important in our entire group and to your attention undoubtedly will come many problems which need clarifying concerning existing and revised regulations and standards as they effect the LP-Gas industry." Today this committee has had to be enlarged because it is not possible for men above named to handle the volume of work they have been requested to do in the Association. These new

members over the past three years are:

#### PRODUCERS

D. D. Purrington (replacing M. L. Baker), Standard Oil Co. of Calif., San Francisco.  
Ken Rugh (replacing F. T. Carpenter), Phillips Petroleum Co., Bartlesville, Okla.  
G. L. Brennan, Warren Petroleum Corp., Tulsa.  
R. Wherry, Skelly Oil Co., Kansas City.  
F. B. Boice, Shell Oil Co., Inc., New York.  
W. A. Baden, Anchor Petroleum Co., Tulsa.  
H. W. Manley, Barnsdall Oil Co., Tulsa.

#### DISTRIBUTORS OF LP-GAS

H. E. Thomas, Fuelite Corp., Lexington, Mass.  
W. T. Joplin, Butane Corp., Phoenix, Ariz.  
W. E. Wight, Consumers Gas of Georgia, Albany.  
Charles Guy, General Gas Corp., Baton Rouge, La.

#### EQUIPMENT MANUFACTURERS

W. H. Miller, Hamler Boiler & Tank Co., Chicago.

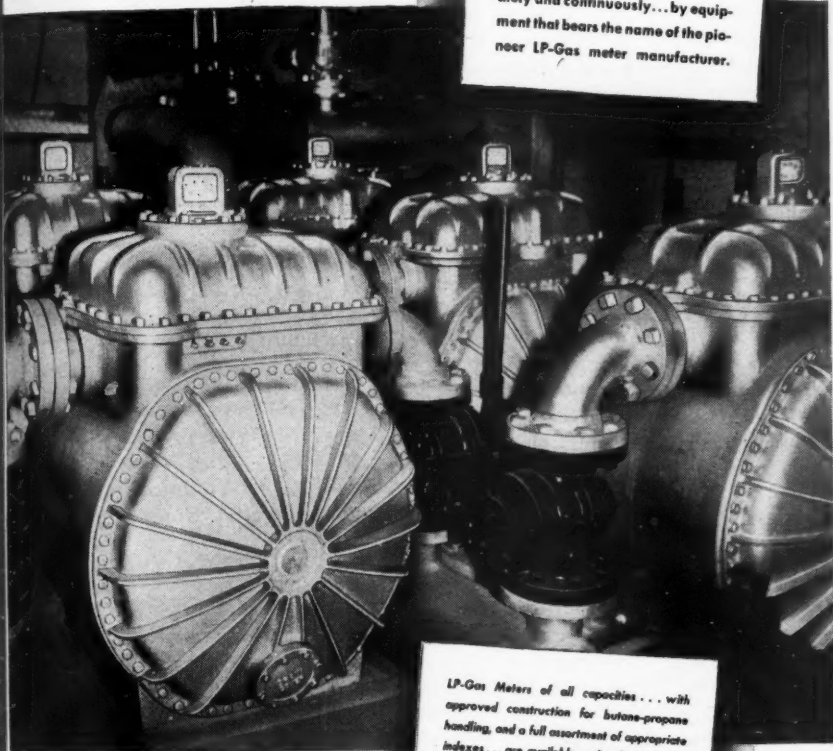
Thus, today the Technical and Standards' membership consists of

9 Producers (and Marketers) of LP-Gas  
11 Distributors of LP-Gas  
7 Equipment Manufacturers

One important sub-committee of the Technical & Standards Committee today has so much work to do that at the last executive board meeting of the LPGA in April, 1944, the board took this volume of work from the T & S Committee and made M. G. Farrar chairman of an appliance committee to report his new committee's findings direct to the executive board, and in turn, direct to the industry. Also today, because of new developments in the LP-Gas industry, and especially in the south and southwest and the far west, new equipment manufacturers and distributors members of the Association, will be asked to serve on the Technical & Standards Committee to help handle the increasing number of problems that are being presented.

# A Battery Goes into Action at Camp Haan

In the propane plant at Camp Haan, in California, this battery of METRIC-AMERICAN Ironcase 500-B's is helping Uncle Sam keep both gas supply and accounts straight. • Each of these five busy meters (LP-Gas type) is handling better than its conservatively rated 10,540 cu. ft. per hr. capacity of propane, measured at 15 lbs. gage. The plant's propane delivery thus is measured accurately and continuously... by equipment that bears the name of the pioneer LP-Gas meter manufacturer.



LP-Gas Meters of all capacities... with approved construction for butane-propane handling, and a full assortment of appropriate indexes... are available under the AMERICAN and METRIC-AMERICAN brands. Helpful CATALOG LP-G-4 mailed you at your request.

## AMERICAN METER COMPANY

INCORPORATED (ESTABLISHED 1836)

GENERAL OFFICES • 60 EAST 42ND STREET, NEW YORK 17, N.Y.

A word should be said of how the Technical & Standards Committee, with approval of the executive board in all cases, works with other Associations in our industry. Technical & Standards Committee members are also members of other organizations, and whether members or not of these other organizations, attend their meetings regularly. In this attendance again they furnish their time and money freely to help our Association. These other organizations are as follows:

National Fire Protection Association  
National Board of Fire Underwriters  
Factory Mutual Association  
American Gas Association  
State Fire Marshal Meetings  
Industry Associations in Washington  
National Association of Appliance and Equipment Manufacturers  
American Society of Mechanical Engineers  
Compressed Gas Manufacturers Association  
American Petroleum Institute

In this and subsequent articles a review of the Technical & Standards Committee agenda will be summarized, and where these subjects are constantly being revised to keep pace with the growth of this industry, an up-to-date interpretation will be attempted to advise the present status of this committee's findings on respective subjects. This agenda will include:

1 Proposed Revisions of National Board of Fire Underwriters' Pamphlet No. 58 (pertaining to LP-Gas industry).

2 Study of Corrosion of Underground LP-Gas Storage Containers.

3 Quinquennial Testing of ICC Cylinders.

4 Revision of National Board of Fire Underwriters' Pamphlet No. 51 (use of LP-Gas with oxygen).

5 New N. E. (ASME) Code for Design of Unfired Pressure Vessels.

6 Storage of Liquefied Petroleum Gases.

7. LP-Gas Pressure Increases for Underground Storage Tanks.

8 Pressure Increases for Transporting LP-Gas in ICC 104A Tank Cars.

9 Storage of Containers.

10 Review of Technical & Standards Committee Work with State Fire Marshals.

11 Review of Specifications for LP-Gas Fuels.

12 Report on Odorization of LP Gases.

13 Use of Alloy Steel Containers to Reduce the Present Minimum Wall Thickness of 3/16" in Pamphlet No. 58.

14 Summary of Discussion on Relief Valves.

15 Discussion of Galvanized ICC Cylinders Versus Painted ICC Cylinders.

16 Discussion of Cylinder Relief Valve Periodic Retesting.

17 Need for Closer Cooperation Between the Technical & Standards Committee and Engineers of Insurance Companies.

To illustrate the character of effort put forth by members of the Technical & Standards Committee a summary of a current report of the T & S sub-committee on Revision of Pamphlet No. 58 Follows. First, the members of this subcommittee are: M. G. Farrar, chairman; K. W. Rugh, H. E. Thomas, G. L. Brennan, J. Woodward Martin, W. H. Verkamp, F. B. Boice, R. W. Wherry, W. H. Miller, W. Joplin, W. B. Wight, Turner Smith.

George Benz, Charles Guy, and W. H. Hoagland.

Mr. Farrar in his last sub-committee meeting, March 24th and 25th at Chicago, assigned various members of his committee and other members of the Association specific jobs to prepare preliminary drafts of definite revisions of NBFU Pamphlet No. 58 to be submitted to the T & S committee at its next meeting.

Many members of the association may not immediately see the need for current revisions in NBFU Pamphlet No. 58. In an industry which has grown as rapidly as the LP-Gas industry, there have been many changes and improvements made in LP-Gas equipment, since Pamphlet No. 58 was revised last in 1940. To keep the recognized rules and regulations in step with industry progress, revisions must be made to include current trends and thinking.

#### Would Guide Makers of Codes

Thus, the objective of this sub-committee is to revise and reduce the contents of Pamphlet No. 58 to the fundamental rules which might be adopted and included in ordinances of states and municipalities. In making these revisions the sub-committee has in mind that Pamphlet No. 58 should contain all the rules necessary to safety and while the primary purpose is to reduce the Pamphlet, this will not prevent adding new rules if necessary to bring it up to date. These revisions are being made with the understanding that Pamphlet No. 58 will be supplemented by a set of Good Practice Rules, to be pre-

pared and adopted by the LP-Gas industry. These latter rules must be sufficiently complete in detail to cover good engineering practice in regard to all liquefied petroleum gas installations and are to be written to further amplify and interpret the rules in Pamphlet No. 58 insofar as the practical application of those rules may require.

At present this sub-committee has reviewed and discussed the entire contents of Pamphlet No. 58, as issued in August, 1940. A framework will be prepared on which they can base subsequent discussion and deliberations.

#### Decisions Require Time

Because of the limited time available at the last meeting of this group, it was impossible to reach a definite decision on every individual rule. Mr. Farrar therefore requested various members of his sub-committee, as well as of the Technical & Standards Committee, to study the several rules in question and address a letter to him with a copy to each member of his sub-committee, giving his opinion and recommendation as to how the particular rule assigned to him might be reworded.

Below, are the various sections of the present Pamphlet No. 58 that are to be rewritten and the names of those assigned to do the preliminary work:

Application of rules (a)—and B.1(a), Ken Rugh; B.2, H. E. Thomas; B.3 and B.4, G. L. Brennan; B.6—present (c) to (f) inclusive, Walter Hoagland; B.7—(b) to (h) inclusive, H. E. Thomas; B.9, G. L. Brennan; B.10,

Walter Hoagland; B.11, J. Woodward Martin; 1.15—2.15—3.15 and 4.15, H. E. Thomas; 1.6—2.6—3.6 and 4.6, W. H. Verkamp; B.9—1.9—2.9—3.9—4.9, G. L. Brennan; 2.17, G. L. Brennan; 2.20, Ken Rugh; 2.25, F. B. Boice; 3.10, G. L. Brennan; 3.17, G. L. Brennan.

In reviewing DIVISION IV of Pamphlet No. 58 on the subject of LP-Gas used as motor fuel, Mr. Farrar has asked Messrs. Turner Smith (General Petroleum Corp.), Geo. Benz (Phillips Petroleum Co.), and Chas. Guy (General Gas Corp.), each to send their comments and suggestions to him with copies to each member of the sub-committee. It is felt that since the rules in Division IV were drawn, subsequent experience with liquefied petroleum gas as a motor fuel may indicate that certain revisions in this section are in order.

This sub-committee has already submitted to the LP-Gas industry changes in storage of fuel rules in DIVISION V which have been accepted by NFPA and will be included in the next issue of Revised Pamphlet No. 58.

#### **Prepare Rough Draft First**

When the assignments for revising these paragraphs are received, Mr. Farrar will prepare a rough draft of Pamphlet No. 58, incorporating the thoughts presented along with the revisions of all other rules as agreed upon at the last meeting. When this is done Mr. Farrar will then call another meeting of the sub-committee for further discussion of the entire pamphlet.

Good Practice Rules mentioned

above will be drawn coincident with or immediately after the completion of Pamphlet No. 58. This same sub-committee will assume this work so that both sets of rules can be submitted to the Technical & Standards Committee at the time in the immediate future.

Copies of NBFU Pamphlet No. 58 can be obtained from the National Board of Fire Underwriters at 85 John St., New York City, or 222 West Adams Street, Chicago, Illinois. If readers will study the above paragraphs in that pamphlet that perhaps will be revised, an understanding of the work that this committee is doing, will be better understood.

In conclusion of this summary of what is to follow and also Mr. Farrar's report, the Technical & Standards Committee welcomes suggestions and constructive criticism of its work and solicits suggestions of members of the Association to assist all in the industry. All communications relative to Technical & Standards Association work should be addressed to the Liquefied Petroleum Gas Association, 11 West 42nd Street, New York 18, N. Y.

(To Be Continued)

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#### **Texas Butane Dealers Form New Association**

A group of dealers in Texas, meeting in Austin on June 21, organized the "Texas Butane Dealers Association."

The president of the organization is E. L. Atkins, of the Allen Butane Gas Equipment Co., Fort Worth.

# How to File Exceptions to L-86

## District No. 5 Committee Addresses Letter To LP-Gas Industry

By P. S. MAGRUDER

Chairman, Liquefied Petroleum Gas Sub-Committee, District 5,  
Petroleum Administration for War, Los Angeles

**L**IMITATION Order L-86 and Application Form WPB-809, controlling the installation of liquefied petroleum gas equipment, have been rewritten in amended form. Copies of both have already been sent to you or may be obtained from your local WPB office. The administration of this Order in District 5 has been delegated to the Los Angeles Office of Petroleum Administration for War, 417 South Hill St., Los Angeles 13, Calif. All applications for exception on Form WPB-809 and all communications



P. S. MAGRUDER

with respect to Order L-86 originating within the states of Washington, Oregon, California, Nevada and Arizona should be addressed to PAW at Los Angeles.

The following terms, used in this letter, are defined:

**LPG-Propane\*** means any product having a propane content 90% or higher.

**LPG-Butane\*** means any product having a normal butane content 90% or higher.

**LPG-Mixture\*** means any mixture of LPG-Propane and LPG-Butane which is not LPG-Propane or LPG-Butane as above defined.

Due to the overall peak load shortage of LP-Gas transportation facilities and the supply shortage of mixtures, it is still necessary for PAW to limit new consumer installations to the necessary essential minimum.

Applications for exception to Order L-86 to permit new consumer installations are usually made by the LP-Gas dealer for the consumer, while applications for the installation of additional LP-Gas bulk storage facilities are made by the dealer for himself. Form WPB-809 is used in both cases. You will note on this form that the dealer is the applicant in either case.

The criterion for determining the approval of these applications

\*The term "LPG" is often used in the petroleum industry to designate LP-Gas, short for liquefied petroleum gas. In the original manuscript of the accompanying article it precedes "propane", "butane," and "mixture" wherever they occur. For brevity and faster reading, the "LPG" has been dropped after this first reference, but readers should understand that the author always has in mind the gases and mixtures used in the liquefied petroleum gas industry as distinguished from the somewhat similar refinery gases.  
—Editor.

must still be the essentiality of the installation, *not the convenience of the consumer or the increase of business for the dealer*. Because of the uncertain supply situation, PAW is not now in a position to consider favorably applications for new installations that will add to the overall consumption of butane or butane-propane mixtures. This means that a dealer should not make applications for new consumers unless he has facilities for delivering propane or is taking steps to provide himself with such facilities.

#### Consumer Should Be "Essential"

While applications for new installations using propane will be approved under certain conditions, it is suggested that you do not submit applications unless the consumer is important to the war program, has no other source of power or fuel readily available and will suffer a real hardship without the installation, which facts you can substantiate. Industrial space heating with propane is not now favorably considered. Residential space heating with propane is considered favorably only if the applicant can substantiate the absence of alternative fuel and exceptional hardship. No grants are being issued in District 5 for conversion of automotive equipment from gasoline to butane-propane mixtures. Installation of LP-Gas as standby fuel is not encouraged. In those cases where there is no alternative, storage capacity should be provided sufficient for 30 days' operation, and the consumer should be advised that the LP-Gas supply may be shut

off during season of peak demand. Consumer storage will have to be filled in off-peak period.

Certification of the manufacturing supplier and the transporter is now required on all WPB-809 applications which contemplate increased consumption of LP-Gas. Suppliers will certify only those loads which can be safely carried through peak demand seasons, it will be possible for PAW to grant most of the applications submitted. PAW officials particularly request that you do not submit an application for exception to Order L-8 just "to see if it will get by". If the industry will cooperate, the number of applications will be reduced to the necessary minimum and it will not be necessary to return them denied.

The following procedure is recommended in submitting applications for exception on Form WPB-809:

(1) For domestic consumers in isolated locations or in house trailers for cooking, water heating or refrigeration, where a natural gas supply is not available and where you can with reasonable assurance, continue to supply propane, fill out Form WPB-809 in triplicate and secure the certification of your supplier and transporter that propane can be actually delivered. The instructions printed on Form WPB-809 (3-15-44) should be followed carefully except that all copies, after certification and approval by supplier and transportation agency, should be sent to Petroleum Administration for War, 400 South Hill St., Los Angeles 13, California. Failure to follow instructions carefully may result in denial of meritorious applications.

# "FOR NOW AND EVERMORE!"

## HYDRO-GAS CO., OF WEST FLORIDA

9 E. GREGORY ST.

PENSACOLA, FLORIDA

Tappan Stove Co.,  
Mansfield, Ohio.

August 23, 1943

Gentlemen:

Please advise us at once what models you will have available for rationing, what delivery may be expected and quotations.

Since appliances have been frozen and service is all that we have delivered, we have had an opportunity to really compare the various makes that we have sold. It perhaps will be nothing new for you to hear, but we have had practically no service calls on any Tappan installations and that cannot be said of any of the other makes we have handled.

If it is possible, we would like to now make arrangements to handle Tappans exclusively for now and ever more. We do not contemplate any great degree of business until the war is over but want to be ready to hit the ball as soon as possible.

Thanking you kindly for your past services, we are,

Very truly yours,  
HYDRO GAS CO. OF WEST FLA. INC.

*Don D. Stow*

Don. D. Stow, PRES.

### WE'RE KEEPING TAPPAN IN THE PUBLIC EYE . . .

. . . and making women more Tappan-conscious than ever before . . . via a continuous advertising tour through the magazines women read most. This constant national Tappan advertising will mean profitable post-war days for you.

Look for TALK ABOUT TAPPAN in:

BETTER HOMES AND GARDENS  
WOMAN'S HOME COMPANION  
LADIES' HOME JOURNAL  
LIFE • McCALL'S

## TAPPAN Gas Ranges



"Certified  
Performance"



For 63 years makers of quality ranges—100% in war work now

AUGUST - 1944

(2) For new "standby" or industrial installations to consume propane, which can and will refrain from receiving supplies of propane during the peak load season except as it can be made available without hardship to others, fill out as in (1) and, in addition in answer to question (2) explain in detail the demand for each month in the year.

(3) For conversion of one or more consumer installations from butane or mixtures to propane, make one WPB-809 application and attach extra sheets, if necessary, to each copy, so as to answer all pertinent questions for each consumer and secure the certification of your producer and transporter that propane can be supplied in place of mixtures for each of the installations converted. Your attention is called to the fact that when a butane tank is released by a conversion to propane, the old butane tank may not be used for a new installation by adding new parts such as valves and regulators unless a WPB-809 approval is obtained. It will expedite consideration of conversion applications if you will write a letter to PAW stating that you will assume responsibility for the released tanks—that they will be withdrawn from use involving the increased consumption of butane or mixtures for the duration of the war.

(4) For new non-domestic on-farm installations to consume propane, it will greatly assist in the handling by PAW at Los Angeles if you can submit the application to the local County AAA Council for them to consider the essentiality of the installation and forward with their recommendation to the Los Angeles office by way of their State Agricultural War Board.

(5) For central gas plants to install pipes, regulators, meters, etc,

to connect a new consumer or to connect a new appliance in a present installation, proceed as in (1) above. If you use butane or mixtures in your plant, it is suggested that you state in answer to question 7 of WPB-809 what steps have been taken or will be taken to substitute propane to take care of added consumer loads.

(6) For installation of propane bulk storage and for other installations which do not result in increased consumption of LP-Gas, proceed as in (1) above except that certifications Nos. 2 and 3 are not required.

(7) In answer to question 9, include an explanation of what the fuel is to be used for:

Domestic.

Commercial—cafe, boarding house.

Agricultural.

War Industry.

Civilian Industry.

If any other essential installations are required, the regular procedure of WPB-809 should be followed.

Your attention is called to the following new requirement of Order L-86:

An exception granted on Form WPB-809 is required before any material whatsoever may be installed, to furnish LP-Gas for fuel to an *internal combustion motor*, or to operate or connect an *additional gas consuming appliance or apparatus* in connection with liquefied petroleum gas equipment currently installed or in use.

Order L-86 does not provide any procedure for the *procurement* of materials. The *possession* of materials does not authorize their installation without a grant of exception on Form WPB-809.

# Men "In the Ranks" Hold Key To Safety Improvements

By GEORGE A. BURRELL

Chairman, Safety Committee, Liquefied Petroleum Gas Association,  
and President, Atlantic States Gas Co., Inc.

I HAVE been appointed chairman of the Safety Committee of the Liquefied Petroleum Gas Association, Inc., and have spent some time going over the proceedings of the Safety Committee, prior to my appointment, and am impressed with the amount of good work that has been done and plans that are in the making for the future.

The general idea of the new safety plan I am proposing, is that the men in the ranks comprise the committees, with the help and advice, of course, of the management. I mean the truck drivers, service men, installations men, bulk station attendants and the like. Further, that they be rewarded for their efforts. You will find the details of the plan as my company operates it, in the following pages.

Also, you will find the names of the various members of the safety committees. These men will work

with you on all safety matters. I want you to know the names of these men.

It is desired that just as many companies as possible institute their safety committees at once, if they have not already done so. Further, the members of the safety committees and I would like to hear from you on any suggestions you care to make, or answer any questions you care to ask, within our ability to answer. Particularly will we be delighted to hear that you have set up a safety committee composed of men in the ranks of your company.

The plan of safety organization that has been found very helpful in my own company, the Atlantic States Gas Co., Inc., follows:

1. At each of our areas we have a live safety committee which is made up of the men who actually do the manual work of the company. They drive the trucks, and other motor cars; install the jobs, service our installations, work around the bulk stations, read the meters, and the like. They are the ones who can do the most to prevent accidents, and if they are enthusiastic about the safety of an organization, the problem of safety has gone a long way toward solution.

---

Col. Burrell, newly appointed chairman of the Safety Committee, LPGA, has proposed a definite program for members and the industry at large that can be put into effect at once with constructive results. The plan is based upon the one already established by Col. Burrell's own company. A letter, setting out this plan, appears herewith.—Editor.

The trouble with most of the safety work of the country is that it starts with safety committees at the top and to a considerable extent stays right there; whereas, to be effective, it has to be carried out by the men in the ranks. They have to be made safety conscious.

2. The Atlantic States Gas Co.'s safety committees meet once a month, and are paid \$5 each, extra, for their attendance at the meeting. Also, if no accident of any kind occurs during

one month, the committee at that area receives a reward of \$15; for two months, \$30; for three months, and each month thereafter, \$50 per month. The committee does what it pleases with the money; but they usually throw a party, lobster, clam, and the like, for the whole organization. In the summertime they have picnics.

Also, for any special meritorious suggestion an individual receives a prize of from \$5 to \$25.

3. Committees are changed each four months, so that all the outside employees of a company can participate in the work, in rotation.

4. A handsome safety banner is held for a six month period by that area which has had the best previous six month safety record.

This, in brief, is one feature of the safety program which I should like to see pushed as hard as possible.

My particular method does not have to be followed, of course. You yourselves can undoubtedly improve on it. But I am convinced that two basic principles should be followed; the men in the ranks should constitute the committees, and they should receive some monetary reward for their efforts.

There are many small companies in the industry, dealers for instance, with not many customers, whom it will be difficult to interest in safety work. Probably they can be mainly approached through their distributors. Any suggestions which you have for reaching these people will be greatly appreciated.

I am asking that various companies who already have established safety committees write me about their methods.

#### LPGA SAFETY COMMITTEE

G. L. Brennan...	Warren Petroleum Corp.
W. A. Buehler.....	Buehler Tank & Welding Works
F. F. Campbell.....	Phillips Petroleum Co.
Ernest Fannin.....	Fannin's Gas & Equipment Co.
G. L. Grigsby....	Oklahoma Butane Gas Co.
Walter Hoagland.....	Fisher Governor Co.
W. T. Joplin.....	Butane Corp.
A. N. Kerr.....	Imperial Gas Co.
H. L. Norway.....	Bastian-Blessing Co.
T. G. Tackett.....	National Butane Gas Co.
H. E. Thomas.....	Fuelite Natural Gas Co.
L. G. White.....	Southern Steel Co.

#### SECTIONAL COMMITTEE CHAIRMEN

E. Martin Anderson, Eastern Section	Utilities Distributors Inc.
W. H. Wulf.....	Eastern Shore Gas Co.
F. L. Putnam.....	Buzzard Bay Gas Co.
Alton Lutz.....	Protane Corp.
C. F. Dexheimer.....	Fuelite Natural Gas Co.
M. G. Farrar.....	Carbide & Carbon Chemical Corp.
John Locke, Mid-Western Section*	Northwestern Blaugas Co.
L. C. Roney, Pacific Coast Section*	L. C. Roney, Inc.
S. Turner, Southern Section (new chairman)	National Butane Co. of Alabama
Rosewell Janes.....	Greens Fuel, Inc.
Willard Ware.....	Carolina Butane Co.
J. E. Price.....	Southeastern Natural Gas Co.
M. L. Trotter.....	California Butane Gas Co.

\* Members of committee not yet announced by the chairman.

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# CURRENT READING

● Reviews of new books, pamphlets and articles published in recent magazines of interest to technicians and executives in the liquefied petroleum gas industry.

**Higher Paraffin Hydrocarbons: Correlation of Physical Properties**—A. W. Francis. "Industrial and Engineering Chemistry," March, 1944, pp. 256-260. The observed densities and refractive indices of paraffin hydrocarbons above  $C_{11}$  are correlated. Eighty-three of the hydrocarbons fall into five classes according to structure. Their properties are calculated by functions of the form  $A - (B/n)$ , where  $n$  is the number of carbon atoms. The same properties of the other 47 observed paraffins are calculated by adding increments depending upon the mode of building their structures from those of lower known paraffins. About 10% of the experimental values are so discordant with the calculations as to suggest inaccuracies in the observations. The average discrepancy for the others is  $\pm 0.0009$ . The 32 observed normal boiling points of branched-chain paraffins above  $C_{11}$  are correlated by similar methods but show poorer agreement, perhaps because of casual observations or inadequate stem corrections. The average discrepancy is  $\pm 6.4^\circ C$ .

**Conservation in Postwar Era to Change Character of Natural-Gasoline Plants**—P. M. Raigorodsky. "Oil and Gas Journal," April 13, 1944, pp. 300, 302. Prediction that the natural gasoline industry will occupy a different position in the postwar era is made in this forecast of future operations. A much closer relationship is anticipated between manufacture of natural

gasoline and producing operations with much greater emphasis on cycling. Use of field plants in the extraction of light hydrocarbons for use in the petroleum and chemical industries is assured, the author holds, because of the difficulties encountered in transporting the volatile products. Large quantities of ethyl alcohol probably will be manufactured from natural gasoline in the postwar period.

**Discussing Economic Design of Modern Pressure Vessels**—E. F. Brummerstedt. "National Petroleum News," May 3, 1944, pp. R-282, 283. Article 1. Factors affecting cost of tanks. This article is the first in a series presenting analytical methods for determining the economic design of pressure tanks for specific working conditions. Design standards used are those of the API-ASME Code for Unfired Pressure vessels. Cost data are based primarily on standard prewar rates, which may be subject to some modification as a result of higher labor rates.

**How Will the New Processes Affect the Postwar Light-Ends Situation?**—D. P. Barnard and J. H. Forrester. "Petroleum Refiner," May, 1944, pp. 89-94. The national butane balance will not be greatly changed by the introduction of the new facilities constructed during the war. It is true that the extensive catalytic-cracking operations will produce greater amounts of butanes than heretofore, but it is also true that there will be increased uses for such butanes. The indicated net result is that the new consumption will exceed the new pro-

duction—but not by an amount sufficient to make possible utilizing all recoverable butanes for purposes other than fuel.

No great change in average front end motor-gasoline volatility is to be anticipated from the various combined factors, although local instances of large front-end volatility increase may develop. It is emphasized that front-end volatility must be kept within reasonable limits if best results are to be obtained by the gasoline user.

Butanes from natural gasoline apparently will have at least as large a field of use as before the war, but there probably still will be substantial amounts that can find no other use than as refinery fuel. To the extent that larger amounts of C<sub>4</sub> fractions can be incorporated in motor gasolines, they should be so used in the interest of oil conservation, but they must be used judiciously. It must be remembered that a reasonable degree of uniformity of motor fuels is essential, particularly in volatility characteristics, if the automobile industry is to produce vehicles which will utilize gasolines most efficiently and with freedom from those difficulties associated with fuel properties. If it appears that relaxing of present vapor-pressure limits of motor gasoline to make possible utilization of surplus butanes is of sufficient advantage, the question should be considered thoroughly and promptly by both the petroleum and automotive industries.

**Production, Application and Transfer of Heat**—"Chemistry and Metallurgy," May, 1944, pp. 97-128. This report contains the following articles: Elements of Heat Transmission, by H. J. Stoever; Film Coefficients for Condensation of Vapors, by R. F.

Bennett and D. F. Othmer; Heat and Cold, Production and Application in Processes, by W. J. Shore; Special Media for Heat Transfer; Equipment for Heat Transfer and Heat Applications, by M. W. Schwarz.

**Corrosion as a Factor in Piping Maintenance—With Special Reference to the Physical Effects of Fluid Flow**—L. G. Vande Bogart. "Heating, Piping and Air Conditioning," May, 1944, pp. 255-260. Paper presented at Midwest Power Conference, Chicago, April 13-14.

**Propane Refrigeration for Alkylation Units.** "Oil and Gas Journal," April 13, 1944, pp. 128, etc. The operation of propane refrigeration units installed to obtain temperatures of 50°F. or below in the reaction zone of sulfuric acid alkylation plants is described in this discussion. Various features for the purification of the propane to remove sulfur dioxide, water, air, and lube oil are explained. The equipment auxiliary to the gas-engine-driven compressors is described.

**Test Pressure and Safe Dimensions of Welded Pressure Vessels**—H. F. Lassner. "Petroleum Refiner," April, 1944, pp. 101-104. This article is a repetition, with additions and corrections, of the identical subject as printed in the December, 1943, issue of "Petroleum Refiner," pp. 89-92. Some later code developments are added and another illustration used.

**Sun's New 15 Plant Completes 100-Octane Conversion Program**—J. H. Kunkel. "Petroleum Engineer," April, 1944, pp. 82D, etc. Latest Houdry unit and HF alkylation unit increase aviation gasoline output. Plant is described and a flow sheet is shown.

# Selling the Postwar Market

RECENTLY, Butane-Propane *News* invited officials of appliance manufacturing firms to express their opinions regarding what LP-Gas dealers might best do now and after the war to be ready for the expansion of the industry that is expected to come.

A number of replies were published in the June and July issues. Another appears herewith. Dealers and distributors of appliances, equipment and fuel will profit from the advice and suggestions of those who have a national outlook.—

—Editor.

## No Substitute for Realistic Planning

By J. E. BOGAN

General Sales Manager, Cribben and Sexton Co., Chicago

THE SUBJECT of appliance sales prospects after the war is fraught with numerous imponderables which make it difficult if not impossible to prophesy the course of appliance sales with complete accuracy.

On the basis of demand and need, the market will be tremendous, not only in the immediate postwar period, but for at least several years thereafter. The existing demand for fully equipped standard ranges can now be classified as critical; the number of ranges needed to fill this demand can be counted in the millions.



J. E. BOGAN

If gas range sales were to be appraised entirely upon the question of demand and need, there would be no question as to the tremendous volume of business that would be transacted. On this basis only, the probabilities are that the demand would exceed the supply for a period of at least two years after resumption of unrestricted gas range production, and perhaps even longer.

Some of the factors that may be expected to influence the rate and rapidity with which the buying public will satisfy its demand for ranges are economic and, therefore, at this time, more in the realm of speculative theorizing than they are subject to factual analysis.

These factors are:

1. Duration of the war.
2. The gradual or abrupt termination of war contracts.
3. The opportunity afforded industry to exercise gradual reconversion to peace time production, or in the event of a swift and sudden termination of the war, the need for sudden and swift, complete reconversion to civilian production.
4. The prospect as to full gainful employment with such contributing items as wage rates, hours of labor, etc.

There are other influencing factors, of course, but the above list will serve to indicate that the prosperity of the gas appliance industry, and the volume of business which it can expect, rests upon factors generally outside the ability of the industry to control.

It is reasonable to assume that these problems will be met with intelligence and foresight, and that we can look forward to an immediate postwar period where economic conditions will not too greatly restrict influence on the decision of the average consumer to purchase a gas

range or other gas appliance, as wanted and needed.

Under normal conditions there exists intense competition in American industry, for the consumer dollar.

If every apparent trend is accurately borne out and intervening developments do not radically disturb that trend, it seems a pretty fair conclusion to believe that competition in its traditional sense will not operate with its customary ferocity. The pent-up backlog need for gas appliances as well as other consumer needs, will voluntarily assert itself by a merchandise-starved consumer public. This top layer or frosting market will not be satisfied for at least a year and perhaps longer.

And therein lies a basic danger, which if it goes unheeded, may paradoxically enough, sound the death knell for smugly satisfied and unsuspecting dealers and manufacturers. A tendency to believe that the gray train of backlog will last will bring tragic and pathetic end to many businesses.

There never has been, is not now, and perhaps never shall be an escape from the cruel fundamental that there is no substitute for hard-headed, realistic planning of your survival against competition.

Of course it can be factually stated that there will exist tremendous potential markets for the sale of gas ranges, and that this market is so vast that it will be several years before the industry can catch up with critical demands. But the prospect of such temporary rose colored lush should be regarded with proper reserve.

In view of the fact that postwar economic problems are receiving ever more serious attention and consideration, it is reasonable to assume that the impact of the change from a war economy to a peace time economy should be made with a minimum of

disturbance. In final summation, it is our considered opinion that while sales of gas ranges will vary as to geographic location, it can be expected that for every gas appliance dealer there will exist an unusual opportunity in the immediate postwar period to amass a greater volume of gas range sales than ever experienced by that particular dealer over any previous similar period of time.

### **Bottled Gas Business Is Sound**

Everything that applies to the city gas range business, particularly with respect to potential sales, also applies to the bottled gas industry. The prospect for this industry is good—because it is based on operating and merchandising practices which are progressively sound. A bottled gas franchise is potentially as valuable as a bank note, except that the owner of the franchise can add as many \$00000 as he chooses without violating counterfeit laws.

As always, the prospects are good for the prospector who digs intelligently and determinedly. As a matter of fact, a little less concern for the complicated mechanisms of monetary and economic spirals, and a little more concern for the acute and crying needs of our individual business plans, will pay off and handsomely, it says in the ageless and irrefutable bible of Business Experience.

### **Mississippi Statute Requires Checking of Tank Trucks**

The Mississippi legislature, at its last session, passed a law requiring the motor vehicle commissioner to establish checking stations for the purpose of determining the capacities of all tank trucks used to transport fuel or other petroleum products.

A bill providing for increases in truck tax fees died in the senate.

# Propane, Stored in 24-Inch, Seamless Tubing, Solves Peak Demand

By FRANK D. HOWELL

Division Superintendent, Dominion Natural Gas Co., Ltd.  
Brantford, Ontario, Canada

**D**URING the past several years many gas companies have been confronted with the problem of storing adjacent to their markets large amounts of gas or alternate fuels that can be transformed into gas in short notice. This necessity has been brought about by increasing markets, inadequacy in some cases of pipe lines, and in others by declining production in known fields. The whole problem has been greatly accentuated by war conditions, as in many cases both domestic and industrial consumption has increased far beyond the capacity of pipe lines and fields in winter weather.



F. D. HOWELL

the largest industrial Province in the Dominion of Canada and to supply the peak demands for gas in this area two of the larger natural gas companies have approached this problem in two novel ways, one with the storage of liquefied petroleum gases above ground and the other the storage of refinery still gas underground.

In 1941 the Dominion Natural Gas Co., Ltd., found it necessary to provide some means of meeting peak loads over the winter months. This company serves a good portion of the public in southern Ontario and numbers among its customers many industrial plants that are turning out vital war materials.

## Company Serves 1040 Btu. Gas

The gas distributed in this area is natural gas with a specific gravity of about .64 and a Btu. of 1040. The problem involved was to secure a source of peak load gas which could be used with the available natural gas, or in some cases in extreme periods with very little or no natural gas, and which at the time could be used in the customers' appliances without wholesale readjustment.

After investigation, liquefied petroleum gases appeared to be the

Underground storage of natural gas has been carried on for a number of years by many companies in the United States but this method was not possible as far as the Ontario situation was concerned as there were no large volumes of natural gas available for storage.

The Province of Ontario is by far

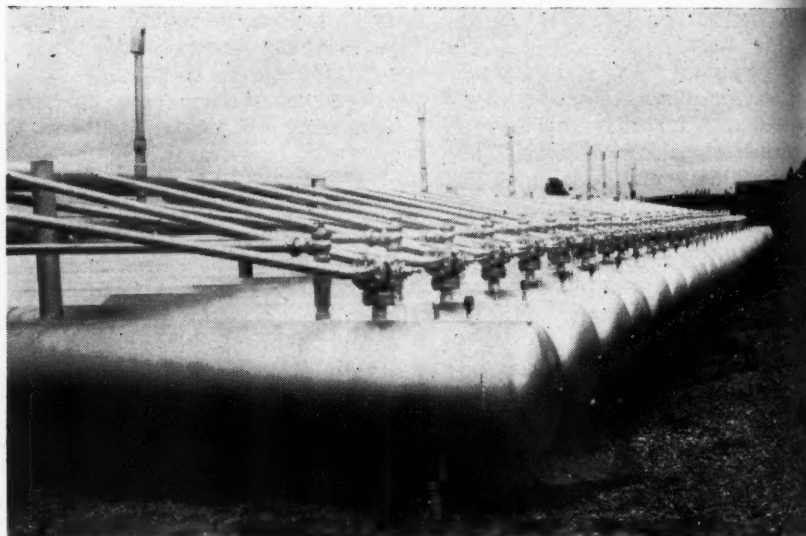
only ones having practical possibilities for our problem and assurance was given that supply of these gases could be made available. Testing equipment was set up in our Brantford shop and hundreds of tests of every type of equipment on our lines, of all ages and designs, were made. After literally hundreds of various mixtures of propane, air and natural gas were tested, we came to the conclusion that propane-air could be used and that it would make a satisfactory peak load gas for our purpose.

One of our major problems, after a site was determined on for the plant, was the problem of storage. Materials at that time were in short supply and the time element was a major factor. It was necessary for us to have storage of sufficient

quantities of LP-Gas to carry over periods of severe weather.

The sources of supply for the gases was a considerable distance from our plant and we required storage of approximately 200,000 imperial gallons to carry us through three or four days of severe weather. The ordinary storage for these gases is large volume high-pressure tanks. We were informed by tank manufacturers that if we could secure sufficient one-inch plate they could start delivery of the tanks in approximately six months' time after they had received the plate. The time involved was much too long for our purpose and other sources of storage were investigated.

The company found that there could be secured a quantity of 24



Storage tanks for propane or butane constructed of 24-in. pipe. Each tank is approximately 425 ft. long.

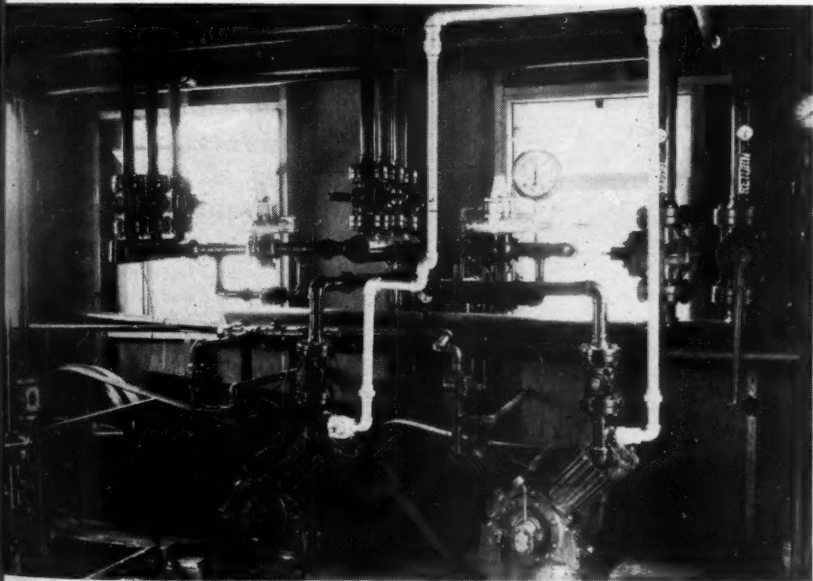
arry n. 9/32-in. wall seamless tubing  
ther. sufficient to provide the necessary  
r the storage. Three acres of land were  
distanc secured for the erection of storage  
quired facilities and plant. The tanks were  
200,00 constructed of this tubing under  
throu Code U-69 Inter-Provincial regula-  
weath tions for the construction of non-  
r the red pressure vessels, were tested  
gh-pres and passed by the boiler inspection  
med b branch of the Department of Labor  
ve cou of the Province of Ontario.

All joints were electrically weld-  
ed and when completed the tanks  
were subjected to water pressure  
of 375 lbs., the welds hammered  
and inspected. The pressure was  
then increased to 500 lbs. static  
pressure and welds reinspected.

The storage, as constructed, con-

sists of 26 tanks approximately 425  
ft. long. These tanks are laid on  
piers on 40 ft. centers which are  
sunk below the frost lines, and  
tanks were firmly anchored at one  
end by being welded to railroad  
irons on each side of the main pier.

There is a wide range in tem-  
perature in this area, resulting in  
approximately 3-in. change in length  
of tanks. They are laid in wood  
cradles embedded in concrete which  
allows sliding action to take care  
of expansion and contraction. All  
the operating valves are at the end  
that is anchored, safety valves  
being placed at the other end of the  
tanks, which puts them approxi-  
mately 400 ft. distant from any  
valves that men are required to



Compressors for unloading LP-Gases for the Dominion Natural Gas Co., Ltd.,  
at Brantford, Ontario.

operate. The safety valves are set at 250 lbs. The tanks are connected by 4 in. liquid lines and looped 4 in. vapor lines and are segregated by valves into four batteries of five tanks each and one of six.

By means of Merco multi-port three-way valves, the tanks can be filled from the siding, emptied to the plant, or liquid may be taken direct from the railroad siding into the plant. All tank openings are provided with Bastian-Blessing excess flow valves, and safety valves are placed on all liquid and vapor lines between valves. Each tank is equipped with pressure gage, thermometer, and liquid level gage.

The storage is located approxi-

mately 1 $\frac{3}{4}$  miles from the railroad siding and is connected to our unloading rack by two pipe lines, one 4 in. and one 2 in. The tank cars are unloaded by pumping vapor from the storage to the 2 in. line forcing liquid through the 4 in. line to the storage.

In three seasons of operation we have found this set-up very satisfactory. While the plant was designed for propane it has proved very flexible and we have used successfully with butane and any percentage of mixture between butane and propane. It has made a large contribution to the civilian welfare and the industrial production of this area.



**BRUNNER**

**LP GAS UNIT**

COMPRESSOR ASSEMBLY THAT WILL PUMP VOLATILE LIQUIDS AND SALVAGE THEIR RESIDUAL VAPORS

**THIS NEW BOOKLET**  
tells how to  
**SALVAGE IT!**

**BRUNNER MANUFACTURING COMPANY**  
UTICA, NEW YORK, U.S.A.

## Save from 500 to 1000 lbs. of LP Gas Vapor from each Tank Car

Conservation of petroleum products is a necessity. The vapor left in the tank after liquid petroleum has been transferred from a tank car or truck equals from 500 to 1000 lbs. of LP Gas. This booklet...probably the most comprehensive ever prepared...tells how this vapor can be salvaged with the Brunner LP Gas Unit. The unit for gas transfer and recovery is outstanding in speed, efficiency and low cost. The savings in gas alone will pay for the unit after few unloadings. In addition, the time required for unloading is greatly reduced. Brunner Manufacturing Company, Utica, N. Y., U. S. A.

### Mail This Coupon TODAY!

Brunner Manufacturing Company, Utica, N. Y., U. S. A.

Send me the booklet describing the Brunner LP Gas unit and containing diagrams, tables and valuable information on the handling of liquid petroleum gas.

Name \_\_\_\_\_

Address \_\_\_\_\_

City and State \_\_\_\_\_

# THE TRADE

The Grand Home Appliance Co., Cleveland, Ohio, through its president, James Mitchell, has announced the

appointment of W. L. Marshall as sales manager. Mr. Marshall comes to Cleveland from Oak Park, Ill.

A key man in establishing the sales policies of the Victor Talking Machine Co. and its successor, RCA-Victor, the



W. L. MARSHALL

39-year-old new sales manager brings a wide experience in selling, merchandising, sales promotion and advertising. He spent the past five and one-half years in Chicago as vice president and general manager of a well known advertising agency which handled such standard products as Carnation Milk, Toastmaster, Victor Advertising Machine, Arnold Schwinn & Co. and has specialized in distributors' accounts.

The W. J. Schoenberger Co. announces that, for each subsequent six months since receiving the original Army-Navy "E" award, they have received a star for continued outstanding production.

The original presentation of the Production Pennant was made to W. J. Schoenberger, president of the company, by Rear Admiral John Downes, Commandant of the Ninth Naval District and Commanding Officer of the

Naval Training Station at Great Lakes, Illinois.

The present award of the fourth star marks completion of two years of continuous excellent production, since the original pennant was presented, and entitles the Schoenberger company to permanent possession of this coveted pennant.

W. B. Evans, president of the Tennessee Enamel Manufacturing Co., Nashville, has been appointed a director of the Nashville branch of the Federal Reserve Bank of Atlanta. The appointment extends to Dec. 31, 1946.

Mr. Evans was one of the organizers of his company in 1921 and assumed the presidency in 1935. Also he is now chairman of the Middle Tennessee Committee for Economic Development.

The Geo. D. Roper Corp., Rockford, Ill., has recently issued a pamphlet called, "Victory Canning in the Home," containing 16 pages of invaluable information for those who expect to aid the war effort by canning fruits and vegetables in the home.

Compiled from such authentic sources as the American Gas Association, Good Housekeeping magazine, National Safety Council, glass jar and closure manufacturers, the U. S. Department of Agriculture and gas company home economic departments, this booklet contains such features as general canning instructions, recommended procedures, use of pressure canner, boiling water bath and other

approved equipment; war-time jars and closures; canning yield, and several pages of recipes.

Dealers are invited to write Roper for information pertaining to method for obtaining this booklet and related advertising material for distribution to present users and prospects.

American Stove Co., St. Louis Mo., "Quick Meal Division," has been awarded the Army-Navy "E" pennant for "excellence in the production of war materiel."

The firm was given special praise for speed and versatility displayed in switching from peacetime production of gas ranges to the production of high explosive shells, heavy demolition bombs, small fragmentation

bombs, auxiliary gas tanks for planes and parachute flares.

Arthur Stockstrom, president, accepted the pennant.

E. J. Zimmer, Jr. has just been appointed assistant to L. B. Kepling, vice president and director of sales for Rheem Manufacturing Co. Zimmer, in his new capacity, will concentrate on the development of sales for new postwar products to be made by Rheem which will include household utilities complementary to its current line of automatic water heaters, space heaters, boilers, pressure tanks and other items.

The company also manufactures a full line of steel containers for petroleum, food and beverage, paint and varnish, and chemical industries.



## Superior LP-GAS VALVES AND ACCESSORIES

For Bulk Stations, Tank Trucks, and above and below ground systems.

- ★ **LP-GAS CYLINDER VALVES** are listed as Standard and for re-examination service by Underwriters' Laboratories, Inc.
- ★ **GLOBE, LINE AND ANGLE VALVES** — Diaphragm Packless and Wing Cap — in Flare sizes from  $\frac{1}{4}$ " to  $\frac{3}{4}$ " O.D.; Sweat sizes from  $\frac{1}{4}$ " to 2" O.D.; F.P.T. sizes from  $\frac{1}{2}$ " to 2".
- ★ **SIGHT GLASSES**, suitable for any normal LP-Gas pressure. Entire top assembly removable without soldering lines to body.
- ★ **FLARE FITTINGS**, including Unions, Couplings, Adapters, Elbows, Tees and Nuts — listed as Standard by Underwriters' Laboratories, Inc.

**SUPERIOR**  
VALVE & FITTINGS COMPANY  
PITTSBURGH 26, PENNSYLVANIA

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*only* **\$7.50**

# **HANDBOOK BUTANE-PROPANE GASES**

**In these two volumes, 896 pages of technical information about  
production, distribution and uses of LP-Gases . . .**

## **ANSWERS**

*to your questions about*

**PHYSICAL and CHEMICAL  
PROPERTIES**

**PRODUCTION**

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**STORAGE**

**DISTRIBUTION**

**UTILIZATION**

**REGULATIONS, ETC.**

"Few, if any, industries have had as complete and up-to-date technical and operating information to guide them in their early stages of development as has the LP-Gas industry with its Butane-Propane Handbook," says Woodward Martin, Manager Stargas Department, Lone Star Gas Co.

Why not make your library complete? We have a few copies of the revised Second Edition of the Handbook still available. These, and the Third Edition, sell individually at \$5 per copy. While they last we offer *both* editions, in combination, for the bargain price of \$7.50. Order your copies today.

We pay postage on orders accompanied by check or money order. In California add 13c for sales tax. In Canada add 50c for excise tax.

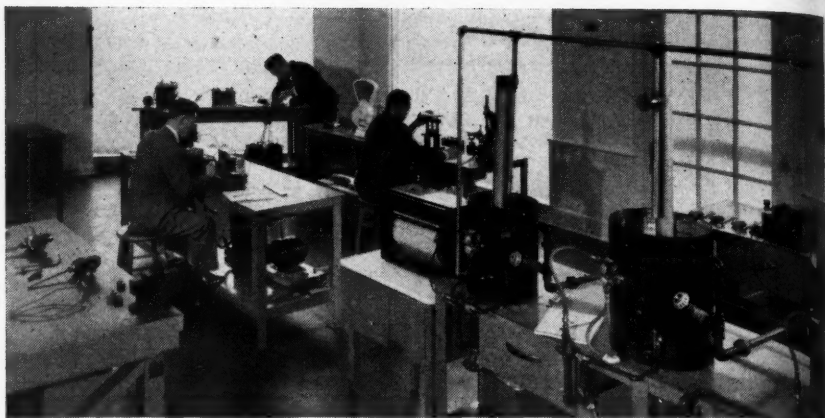
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**BUTANE-PROPANE NEWS, 1709 W. 8th St., Los Angeles 14, Calif.**

**AUGUST - 1944**



West Coast Laboratory of the Robertshaw Group.

A new research and development laboratory has been established in Los Angeles to serve the West Coast activities of the **Robertshaw Group**, composed of the Robertshaw Thermostat

Co., Youngwood, Pa.; Grayson Heat Control, Ltd., Lynwood, Calif.; and the American Thermometer Co., St. Louis. It is located at 833 N. Highland Ave.

An open house, dedicating the laboratories, was held on the evening of July 13, with manufacturers and utility representatives as guests. Informal demonstrations and explanations of equipment were given before and after a supper served on the patio of the unusually attractive and well arranged laboratory building.

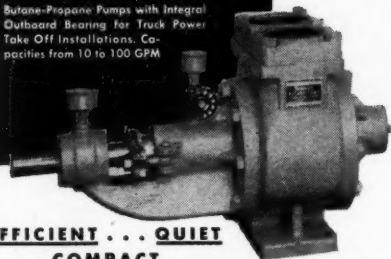
The announcement of the new development in West Coast facilities of the Robertshaw group came from Thomas T. Arden, president of Grayson Heat Control, Ltd.

S. G. Eskin, director of research, has inaugurated an extensive program emphasizing domestic and commercial appliance control and accessory research.

Laboratory facilities include extensive experimental rooms, a complete machine shop for model construction, drafting rooms, a testing laboratory, conference room, library, and offices for staff engineers and scientists.

## HR-119 HARMAN TRUCK-TYPE PUMP

Butane-Propane Pumps with Integral  
Outboard Bearing for Truck Power  
Take Off Installations. Capacities from 10 to 100 GPM



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**POSITIVE DISPLACEMENT . . . REVERSIBLE ROTATION . . . LOW  
FRICTION BEARINGS . . . NO CONTACTING METAL PARTS**

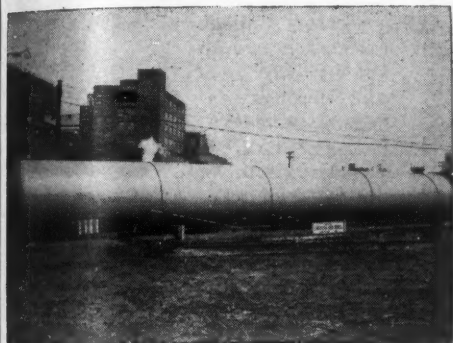
The Harman principle of pump design embodies a single rotor on a shaft rotating off-center in the cylinder. Since 1931, Harman Rotary Pumps have been giving dependable year-in and year-out operating efficiency in the handling of liquefied petroleum gases.

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30,000 Gallon Water—25,000 Gallon Liquid Propane Capacity Storage Tank 8'4-13/16" O.D. x 76'9-5/16" Long

Complete bulk plants designed, fabricated and installed by experienced men. Detailed information and estimates furnished without obligation.

GAS PLANTS FOR MUNICIPALITIES

## LEADERSHIP!

Quality - Safety  
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Butane-Propane tanks fabricated in strict accordance with the ASME code; API-ASME Code; Dept. of Public Safety, Commonwealth of Massachusetts; and National Board of Boiler & Pressure Vessel Inspectors' regulations.

Bulk Tanks - Skid Tanks  
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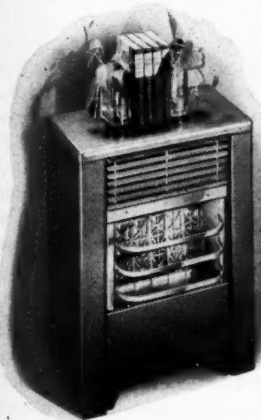
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Butane-Propane Mixtures

**LANCASTER IRON  
WORKS, INC.**

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## DEARBORN WORLD'S FINEST... SAFEST L.P.G. GAS HEATERS

A complete line of Vented and Unvented Quality heaters. Their Ultra Smart Appearance, Outstanding L.P.G. Performance and many Exclusive Features create unprecedented user enthusiasm. You are assured satisfied customers and decidedly lower service costs when you sell this fine line.



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GAS.

### FAMOUS HI-CROWN BURNER

BLUE FLAME PILOT LIGHT

Leading L.P.G. Distributors from coast to coast rate it the finest of all burners for Butane. It "performs" without coaxing, constant cleaning or adjusting. Its quiet, odorless operation, great flexibility and reserve capacity insures your customer's being completely satisfied.

## DEARBORN STOVE CO.

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### FEATURES THAT SELL

A.G.A. Approval, Hi-Crown Burners, Automatic Lighting, Syphonaire Chassis, and Air Insulated Cabinets are features your customers want. Finer—Safer, heaters, yet priced unbelievably LOW. Write for literature.



**SMITH METER  
BU-46**—built especially for metering  
l. p. g.: 50 g.p.m.;  
250 lbs. working  
pressure; guaranteed sustained  
accuracy; fast,  
steady flow.

**\$150.00 per Hour**  
**\$1,500.00**  
**per Day**

Butane meters measure money. At 50 gallons per minute, a meter handling liquid costing 5c per gallon measures \$150.00 worth each hour—\$1500.00 worth each 10-hour day!

That's why sustained accuracy is the vital consideration when choosing a meter. That's why all Smith Meters are built around the focal point of **sustained accuracy**. The simple, time-tested Smith Rotary Principle, and exclusive Smith Design, provide an unequalled combination of metering speed and sustained accuracy.

Smith meters for tank trucks, bulk plants, refinery and pipe line service are all available on priorities.

**SMITH METER COMPANY**

SUBSIDIARY OF A. O. SMITH CORPORATION  
Factories at Los Angeles and Milwaukee

W. A. (Wid) Siegfried, who since his graduation from Washington Jefferson College in 1934, has been associated with the LP-Gas valve and fittings industry, joined Superior Valve & Fittings Co. on July 1 as assistant to the vice president, according to K. M. Newcum, vice president in charge of sales.



W. A. SIEGFRIED

The majority of Mr. Siegfried's 10 years in the industry was spent in the eastern district, with headquarters in New York, although he lived in Atlanta, Ga., during 1937 and traveled the southeastern states.

In his new capacity, Mr. Siegfried will be stationed at the factory in Pittsburgh.

The Burdett Manufacturing Co., 19 N. Loomis St., Chicago, has issued a new, illustrated catalog of its "infrared principle gas burners and combustion equipment." Due to the extensive and detailed presentation of engineering and reference material, it will be sent only to industrial sales engineers when requests are made on their company stationery.

The catalog covers burners, mixing equipment, valves, gas pressure regulators, motors and blowers, pilot safety devices, temperature controls, electrical accessories and general engineering data such as velocity pressures, motor ratings, measurement of electrical power, calculating power requirement tables and charts, heat losses and thermal capacity of gases.

## C. D. Gard Elected President of CNGA

THE annual meeting of the board of directors of California Natural Gasoline Association was held July 11, at the Biltmore hotel, Los Angeles. This was the occasion for the formal transfer of leadership of the Association to C. D. Gard, Union Oil Co. of California, by R. W. Heath, Signal Oil and Gas Co., retiring president.



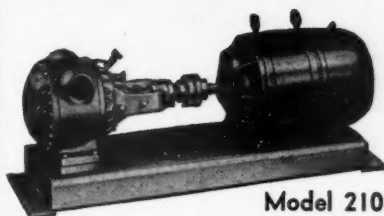
GEO. L. TYLER



C. D. GARD

Mr. Gard joined CNGA within two months of its organization in June, 1926, and has been active in its work since that time. He graduated in electrical engineering at University of Southern California in 1917 and saw service in U. S. naval aviation during the last war. After working for a time with the Los Angeles Bureau of Power and Light he entered the employ of the Union Oil Co. of California in January, 1921, engaging in experimental work and the development of several ideas which were later incorporated in commercial plants. He has since served his company in the capacity of plant

## SMITH BUTANE-PROPANE PUMPS



Model 210

## STANDARD EQUIPMENT

With Leading LPG Engineers

**MODEL 210 (Above)** • 2" pipe size. Capacity 50 GPM at 1750 RPM for direct connecting to electric motor.

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**MODEL 300** • 3" pipe size. Capacity 100 GPM at 1750 RPM for direct connecting to electric motor.

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**BALANCED GEAR CONSTRUCTION  
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**FLUID SEALED PACKING BOX  
ELIMINATES HAZARDOUS LEAKS**

**250 LBS. WORKING PRESSURE**

Complete Assemblies

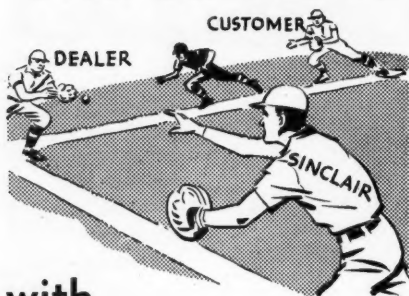
Including Motors

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# A WINNING TRIPLE-PLAY



## with **SINCLAIR** BUTANE, PROPANE

Now for a fast triple-play with Sinclair LP-Gas—SINCLAIR . . . to YOU . . . to your CUSTOMERS.

Your CUSTOMERS want a trouble-free, high quality fuel that serves them with unfailing dependability. They want a clean, quick-heating fuel at a cost that will mean steady savings.

YOU can satisfactorily supply their demand—whether it is for a simple home installation or an industrial plant—by selling SINCLAIR. Your efforts will be backed by a name nationally known for high quality.

The customer is the deciding factor of this triple-play and he'll be getting a superior product, made in modern plants, by experienced workmen, under strict supervision.

### **SINCLAIR PRAIRIE OIL COMPANY**

Liquefied Petroleum Gas Division  
Sinclair Bldg. Tulsa, Oklahoma

engineer, supervising the construction and operation of natural gasoline absorption plants; superintendent of gas operations, and, since March 1941, has been chief process engineer, field department, with headquarters at Santa Fe Springs, Calif.

Always willing to give generously of his time in CNGA activities, Mr. Gard has served as its technical committee chairman, a director and member of the executive committee, and as vice president, with his election to the presidency for the fiscal year 1944-45. He has also been active in several API committees from time to time.

Election of M. L. Arnold, Richfield Oil Corp., as vice president, was also announced at the meeting.

Geo. L. Tyler, for many years secretary of the CNGA, was reelected to that position for another year by the board of directors.

### **ODT Will Handle Truck Rationing Program**

Rationing of new trucks and other commercial motor vehicles has been turned over to the Office of Defense Transportation, the War Production Board has announced. The new rationing plan went into effect on July 1, under ODT General Order 44.

It is fully expected that this change in the rationing machinery will result in more expeditious handling of applications for new trucks and other commercial motor vehicles needed for essential civilian use. On July 1, WPB turned over to ODT full responsibility for the distribution to essential users of new trucks, truck tractors, trailers and other commercial vehicles.

WPB Order M-100, under which nearly a quarter of a million trucks have been rationed will be revoked as of July 1, after which time WPB will not handle trucks.

# TANKS

A. S. M. E. CODE BUILT for all

## LIQUEFIED GAS REQUIREMENTS

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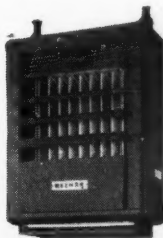
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*How to Save*

ON NEXT SEASON'S

# HEATING BILL

It won't be long before the heating bugaboo rears its costly head again. Here's an easy method to save on fuel costs.



### PAY ONLY FOR HEAT YOU USE

Only during two or three months of the heating season does the weather necessitate full-scale firing. When you pay only for the small amount of heat you actually consume, money is saved.



### REZNOR GAS-FIRED UNIT HEATER

You can turn on or turn off a Reznor instantly. Thermostat control is available. During mild weather, heat is needed only few hours a day . . . No need to pay for heat when you don't need it.

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"GAS HEATERS EXCLUSIVELY SINCE 1888"

## STOPS *all* LEAKS

Yes, TITE SEAL gasket and joint-sealing compound stops ALL leakage of LP gases and liquids because TITE SEAL is heat proof, cold proof, pressure tite, vibration proof and non-solvent.

TiteSeal always remains plastic and always permits easy dis-assembly.

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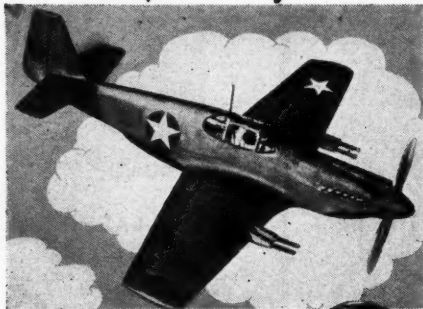
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## Today's Fighters



Use Tomorrow's  
Oven Heat Controls



# Robertshaw

ROBERTSHAW THERMOSTAT COMPANY  
YOUNGWOOD, PENNSYLVANIA

## Service Price Law Simplified

THE regulation establishing maximum prices for services has been substantially simplified and reduced in size by a general revision and simplification of its provisions, the Office of Price Administration announced July 1.

At the same time, practically all services that previously were under the general maximum price regulation have been brought under the revised services regulation.

Thus, most service suppliers need look to only one regulation in determining their maximum prices when the revision becomes effective August 1, 1944, except for Alaska, where it will become effective Sept. 1, 1944.

### Three Changes Are Made

In general, few changes are anticipated in the maximum prices already established as the result of this revision, which retains the March 1943 base period of the old services regulation and the general maximum price regulation. However, maximum prices determined on the basis of the price of a "similar" service, a competitor's offering price, or a price adjusted in accordance with the seller's price differentials must be redetermined, since these pricing provisions have been deleted.

The three groups of services continuing under the general maximum price regulation are: Transportation services of contract carriers; storage, warehousing and terminal services; and the furnishing of electricity, gas, light, heat, power or water otherwise than by a public utility.

It is now expressly stated that

*A Name  
That Stands  
for Quality*

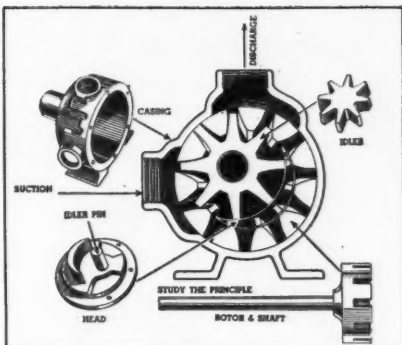
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Tanks for  
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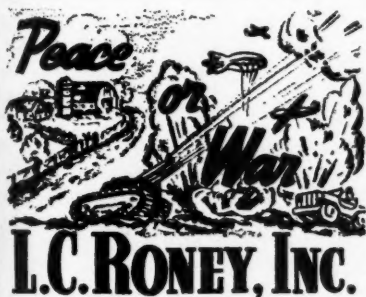
## That's All There Is ... There Isn't Any More

Extremely simple in design, yet exceptionally sturdy in construction, Viking Rotary Pumps operate on the famous "gear within a gear" principle, with only four major parts and with **ONLY TWO MOVING PARTS**, as illustrated here. It's easy to understand why Vikings have won leadership in the rotary pump field. Viking Pumps give dependable service with a minimum of wear.

Write today for Bulletin 2300 which gives complete information about Viking Pumps widely used today in the butane-propane industry. **IT'S FREE.**



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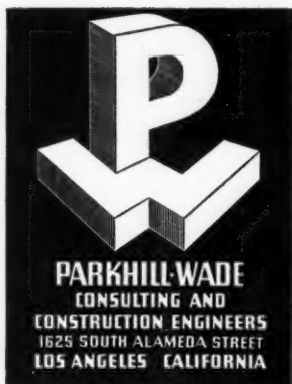
meets the demands of the nation. Our plant has gone to war for the duration—but when peace comes, L. C. RONEY products for the LP-Gas industry will meet the demands of dealers everywhere. In the meantime—our stock of LP-Gas equipment is still complete.

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4744 W. 111 ST. LOS ANGELES, CALIF.

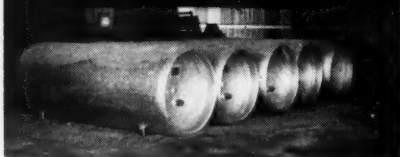
AUGUST - 1944

## Refineries and Plants

For Recovery of  
Isobutane  
N-Butane  
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## AMERICAN HIGH PRESSURE TANKS



Safe, Efficient, Dependable Service  
Stretched Over Years. Specify  
American and Get Economical Storage Costs.

AMERICAN PIPE & STEEL CORPORATION  
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rentals of articles, not already governed by other price regulations, are considered "services" under the revised regulation, OPA said.

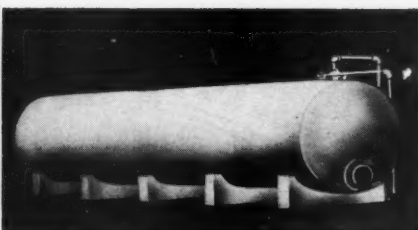
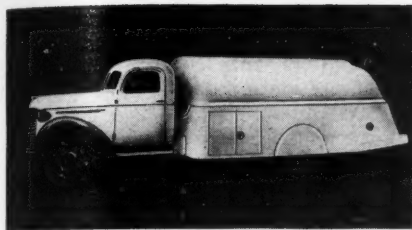
All sellers under the original services regulation whose prices are changed by the revision, as well as all sellers brought under the revised regulation for the first time, must file a complete statement of their maximum prices with the proper War Price and Rationing Board within 30 days of the effective date of the revision.

In the case of violators of the regulation who do not file their maximum prices with their War Price and Rationing Boards, or who do not apply to OPA for ceilings, OPA may set ceilings for them in line with the regulation's provisions.

### ICC Issues Modification On LP-Gas Intrastate Transport

Effective June 24, 1944, the transportation of liquefied petroleum gases in containers other than cargo tanks when such containers conform in all respects to those authorized for use under ICC Regulations for the Transportation of Explosives and other Dangerous Articles, by private as well as common and contract carriers by motor vehicle in intrastate commerce, has been removed from regulation by the Interstate Commerce Commission under a further modification of the Commission's April 20, 1943, Order.

In a release of the LPGA dated May 24, 1943, it was pointed out that transportation of inflammable liquids in intrastate commerce by all motor carriers was exempted from the provisions of the April 20, 1943, order by an ICC order of Aug. 27, 1943. At the same time, transportation of explosives other than inflammable liquids—and liquefied petroleum gases



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### Seal-Rite Joint Compound No. 5—Finest on the Market 400 Satisfied Users

1-lb. cans (48 per case) .. \$ .60 per lb.	30-lb. cans ..... \$ .35 per lb.
5-lb. cans (12 per case) .. .50 per lb.	50-lb. cans ..... .30 per lb.
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## Southern Gas & Equipment Co.

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*P.S. Don't Forget Old Frank and Henri*



## THOMAS Cylinder Truck Saves Men, Time and Lawns

- ALSO FOR STOVES, BOXES, CRATES
- PNEUMATIC RUBBER TIRES AVAILABLE NOW

An all purpose, one man truck for moving both cylinders and appliances. No more back-breaking lifting, either. Tapered body gives operator ample room between handles. Cradle construction accommodates any size cylinder up to 100 pound capacity. Wide Bottom flanges give support for appliances. Web strap (optional) holds appliance rigidly. Rounded handle grips permit skidding from end of delivery truck. Time saving, labor saving, cost cutting. Available now.

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& CASTER  
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## Manufacturers of:

- Butane-Propane carburetors and heat exchangers.
- Combination butane-gasoline carburetors.
- Units for trucks, tractors, oilfield and other stationary equipment.

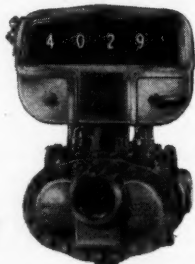
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## SAVE

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- \* LOSSES
- \* DELAYS
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59 E. Van Buren, Chicago • 302 South Pearl St., Dallas, Texas  
*Representatives and Stocks in All Principal Cities*

would come in this category—was not exempted but made subject to the regulations only for the duration of the war and six months.

To summarize, ICC Regulations governing the Transportation of Explosives and other Dangerous Articles at present apply to private motor trucks operating—

(a) in interstate commerce, transporting explosives and other dangerous articles;

(b) in intrastate commerce, transporting explosives and dangerous articles excluding inflammable liquids and liquefied petroleum gases when transported in suitable containers other than cargo tanks—only for the duration of the war and six months.

## WPB Permits Industry to Make Limited Conversion Plans

Executive Vice Chairman Charles E. Wilson of the War Production Board announced July 11 the schedule for the issuance of the four orders designed to enable industry to prepare now for limited reconversion.

The issuance dates for these orders have been set in order to give the War Manpower Commission more time to perfect its organization and administrative controls. The schedule calls for issuance of the orders in the following sequence:

1. On July 15, orders lifting some of the current restrictions on the use of aluminum and magnesium were issued.

2. On July 22 an order was issued permitting the making of the minimum number of models necessary for strictly experimental purposes. It will not allow samples for sales promotion.

3. On July 29 was issued an order permitting the placing of unrated orders for machine tools and equipment.

4. On Aug. 15 will be issued an order, which will set up procedures by

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**COMPLETE**

*On The Selection Of*  
**VENTED & UNVENTED  
BRILLIANT FIRE  
GAS HEATERS**

now available under  
**WPB & OPA Regulations**

Write for illustrated Circular No. 460  
listing available models together with  
information on how they can be  
bought and sold.

**The Ohio Foundry & Mfg., Co.**  
STUEBENVILLE, OHIO  
*"Quality Heating Equipment  
Since 1846"*

*For*  
**PROPANE or  
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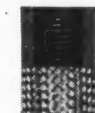
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**REXWELD combines  
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REX-WELD is preferred by  
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In addition to providing maximum  
flexibility, REX-WELD is highly resistant  
to fatigue, handles burst pressures up to  
14,500 p.s.i. and temperatures to 1000°  
F., remains air tight longer, is leakproof  
even after hard usage, can be used for  
liquids that are searching and will with-  
stand prolonged flexing.

Chicago Metal Hose Corporation man-  
ufactures a type of flexible tubing to meet  
every requirement. Our engineers will  
be glad to recommend the type best  
suited to meet your particular  
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Flexible Metal Hose for Every Industrial Use



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Plants: Maywood and Elgin, Ill.

*For Safety  
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## ETHYL MERCAPTAN

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The **ACCEPTED**  
standard  
odorant  
for liquefied  
petroleum  
gases.

**MALLINCKRODT  
CHEMICAL WORKS**

ST. LOUIS

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## UNITED STATES Automatic Water Heaters

### The "QUALITY" Line



A **COMPLETE LINE** in  
size and price range ...  
a heater for every purpose



**A. G. A. APPROVED**

**United States Heater Co.**  
COMPTON, CALIFORNIA

which individual manufacturers who have facilities and manpower not needed for the war effort, and where the material is available, could get permission through the War Production Board field officers to make civilian articles not now allowed or to exceed present limits on the quantities of articles whose production at present is permitted.

### New Amendment to L-23-c Lists Exemptions

An amendment of June 20 to L-23-c exempts certain stoves from the restrictions of Schedule B, which lists the permitted numbers and types of domestic cooking appliances and heating stoves.

Exempt are stoves for the Army, Navy, Maritime Commission, WSA, FEA, Coast Guard, or for installation authorized by any order in the P-19 or P-55 series, or authorized on Forms GA-1456, WPB-2896, or WPB-646.

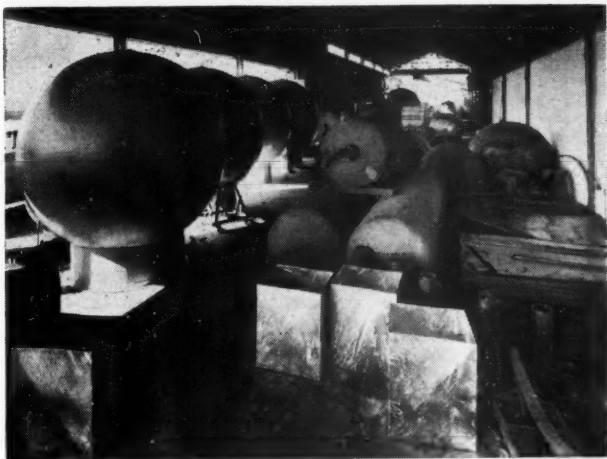
In addition, the amendment makes a minor change in Schedule B, permitting production of one single and one double type portable oven and one drum oven of any type.

### Furnace Manufacturers May Raise Prices 9 Per Cent.

An increase of 9% in manufacturers' lowest published list prices in effect on Aug. 4, 1943, for cast-iron warm-air furnaces burning wood, gas, or oil, with a Btu. output of 900,000 or less at the register or outlet, was announced June 24 by the Office of Price Administration. A 9% increase was also granted manufacturers of repair parts for both cast-iron and steel warm-air furnaces.

The increases, effective June 24, apply only to sales made on an uninstalled basis.

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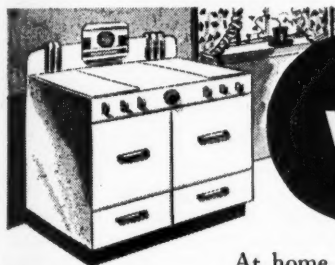


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## THE HOME OF SUPERIOR TANKS

6155 So. Eastern Ave. Los Angeles, Calif.  
Phones: Angelus 4157; Nights, Fairfax 1545

A PHONE CALL WILL BRING A REPRESENTATIVE TO DISCUSS YOUR NEEDS.



IN  
WAR OR  
PEACE

At home and on the industrial front, a dependable source of Butane and Propane means more satisfied customers. For more than fifty years, through wars and in peace times, Carter has faithfully served. Write us for higher quality Butane and Propane.

DEHYDRATED

**PROPANE • BUTANE**

*The*  
**CARTER**  
WHOLESALE ONLY *Oil Company*  
TULSA, OKLAHOMA

AUGUST - 1944



**BUTANE-PROPANE EQUIPMENT**

PUMPS  
METERS  
HOSE  
VALVES  
REGULATORS  
FITTINGS

**Roadmaster Sales Corp.**

of Texas

317 So. Pearl Street

Dallas, Texas

## SPRAGUE METERS

*for*

**PROPANE - BUTANE SERVICE**

*Write for Particulars*

**SPRAGUE METER  
COMPANY**

Bridgeport, Conn.  
Los Angeles, Calif.  
San Francisco, Calif.

**E. E. Williams, Shell Oil Co.,  
Transferred to New York**

E. E. Williams, former division Shellane supervisor of the Shell Oil Co.'s Detroit marketing division, has been transferred to Shell's head office in New York. In his new position, he will be field assistant to F. B. Boice in LP-Gas activities of the Shell Oil Co., and will contact manufacturers of equipment and appliances.



**E. E. WILLIAMS**

A pioneer in Shellane market-

ing, Mr. Williams entered the Detroit area less than a year after the company began distribution of liquefied petroleum gases in that region, and served there for 14 years. He is a graduate of Syracuse University.

### **Scope of P-98-b Expanded By June 26 Correction**

A correction to the amendment of June 26 to P-98-b provides that the AA-1, MRO-P-3 preference rating and allotment symbol for MRO materials or laboratory equipment for use in the petroleum industry also applies to other material so used, not exceeding \$500 in material cost for use in a single operation.

This rating may not be used for a service station or retail outlet.

### **Fleet Truck Operators May Use Checks on Ration Bank Accounts**

Operators of fleets of official or commercial motor vehicles may use checks on a ration bank account, in-

*Distributors for*

**REGO**  
LP GAS EQUIPMENT

**Hackney**  
BUTANE - PROPANE CYLINDERS

**GAS EQUIPMENT CO., INC.**  
2620 South Ervay Street, Dallas, Texas  
**GAS EQUIPMENT SUPPLY CO.**

## National Butane Gas Co.

Memphis, Tenn.

◆  
MANUFACTURERS

of asme u-69

LIQUEFIED

PETROLEUM

GAS STORAGE TANKS

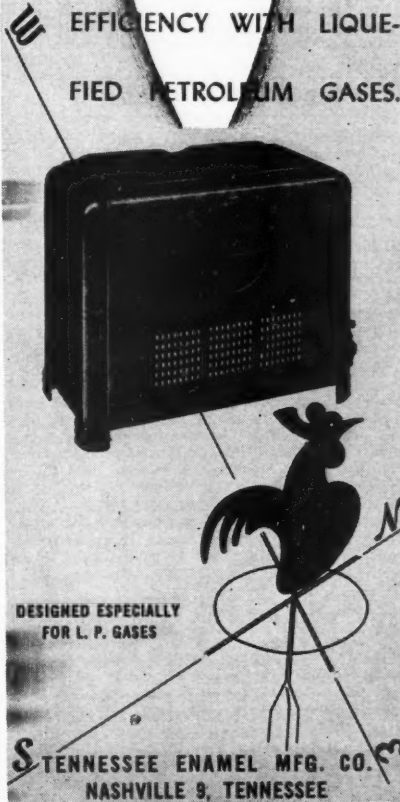
◆  
2147 Frisco

Phone 4-6241

# Bu-Pro-Fire

## Gas Heaters

A GOOD NAME TO REMEM-  
BER FOR GREATER HEATING  
EFFICIENCY WITH LIQUE-  
FIED PETROLEUM GASES.



DESIGNED ESPECIALLY  
FOR L. P. GASES

**TENNESSEE ENAMEL MFG. CO.**  
NASHVILLE 9, TENNESSEE

AUGUST - 1944

# CLASSIFIED

Classified advertising is set in 6-point type, without border or display, at the rate of 10 cents per word per insertion; minimum charge per insertion \$2. Box numbers for replies count as 5 words. Count as a word each one letter word and each group of figures. Classified advertising is only accepted when payment accompanies order. Copy and payment must reach publisher's office prior to 10th of month preceding publication.

## HELP WANTED

WANTED—SALES REPRESENTATION FOR LP-Gas lines. Texas, Louisiana, Oklahoma preferred. Ten years selling jobbers, four years selling butane equipment. Wide, influential dealer acquaintance. Address Box 320, Butane-Propane News, 1709 W. 8th St., Los Angeles 14, Calif.

## EQUIPMENT WANTED

WANTED—ONE 2500 TO 3000 GALLON tank semi-trailer for Butane. Schaefer Bros., Box 835, Cortez, Colorado.

## EQUIPMENT FOR SALE

SELL: THREE TRANSPORTS CONSISTING Tractor, Semi-Trailer and Twin Tanks; Two for Propane, approximately 3300 gallons capacity; the third 4300 gallons for 125 lb. working pressure. Write North American Utility & Construction Corp., 415 Lexington Ave., New York 17, N. Y.

FOR SALE: BUTANE TANK TRUCK, 1524 gallon 125 lb. working pressure, Columbian truck tank, pump, meter, fully equipped, K-5 1941 International. All equipment in exceptionally good condition. Write Uregas Service, Inc., Box 152, Moberly, Missouri.

FOR SALE: FOUR 15,000 GALLON TANKS suitable for Butane or Butane-Propane Mix. Good condition, priced right, immediate delivery. Western Gas Fuel Company, 206 South Nineteenth Street, Omaha 2, Nebraska.

BUTANE & PROPANE STORAGE TANKS for sale. 1500 and 1850 gallon sizes, complete with fittings, valves, etc. Approved type, no priority necessary. Wire or write BENTLEY'S, Kinsley, Kansas.

ONE NEPTUNE RED SEAL BUTANE Meter. 1 1/4" connections. 500 gal. Dial Reset. Includes B/P Valves, air release and strainer. Cost \$165.00. Never been used. \$100.00 cash. Box 325, BUTANE-PROPANE News, 1709 W. 8th St., Los Angeles 14, California.

stead of coupons handed over by their drivers at the time of transfer, to settle for gasoline delivered to units of their fleets under a procedure announced July 11 by the Office of Price Administration.

The plan, effective July 14, is designed to stop the flow of coupons from drivers of fleet vehicles into the black market, by taking the coupons out of the hands of drivers and allowing the operators to make deferred payments by ration check. The "float" of these rations has been an important source of supply of the market for illegal gasoline coupons.

Only fleet operators who use 960 gallons of gasoline or more a month, and who buy this gasoline on monetary credit under PAW Directive 62, are eligible to apply the plan. And only gasoline dealers or distributors who have been designated individually by operators to whom they sell gasoline on monetary credit may make such sales on ration credit.

## How to Buy Surplus Goods From Government Is Set Out

Companies desiring to be informed regarding surplus merchandise offered for sale by the treasury procurement surplus war property division should write to the nearest re-

## TANKS

*In the Pacific Northwest*  
See

## King Bros., Inc.

**For Your Tank and  
Cylinder Requirements**

3500 S. E. 17th Ave., Portland, Ore.

gional office (see list below) asking to have their names placed on the mailing list. It is important that the request be accompanied by a statement of the specific merchandise lines which the company normally manufactures or buys for resale.

The categories of surplus merchandise whose disposal is the responsibility of the treasury procurement surplus war property division include automotive bodies and parts; electric motors, motor ignition equipment and electric appliances; tractors; plumbing and heating equipment; air conditioning and refrigeration equipment; heating and ventilating controls; and lighting fixtures. Capital and producer's goods are assigned to Reconstruction Finance Corp. for disposition; food is assigned to War Food Administration.

#### REGIONAL OFFICES

Park Square Bldg., Boston, Mass.	76 Ninth Ave., New York, N. Y.
1229 20th St., N. W., Washington, D. C.	Faller Bldg., 8th & Walnut Sts., Cincinnati, Ohio
Room 300, 209 S. LaSalle St., Chicago, Ill.	Exchange Bldg., 1030 15th St., Denver, Colo.
10 Forsyth St. Bldg., Atlanta, Ga.	609 Neil P. Anderson Bldg., Fort Worth, Texas
2605 Walnut St., Kansas City, Mo.	30 Van Ness Ave., San Francisco, Calif.
2005 Fifth Ave., Seattle, Wash.	

#### Modern Appliance Co. Opens Office in San Francisco

The Modern Appliance Co., of San Mateo, Calif., has opened a wholesale division of its business in San Francisco. Headquarters are in the Western Merchandise Mart.

The new division will specialize in commercial refrigeration, frozen food cabinets and supplies. Charles R. Rogers, formerly district sales manager for a Servel distributor, will be in charge of the San Francisco office.

## For "AFCO" Tanks

Write the

**ARKANSAS FOUNDRY CO.**  
IRON & STEEL

Manufacturers of ASME U-69  
Underground Storage Tanks  
for Butane

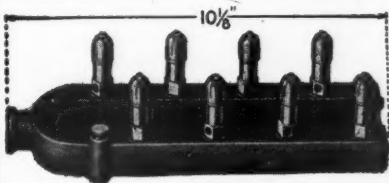
**Arkansas Foundry Company**

1501 EAST SIXTH STREET  
LITTLE ROCK, ARKANSAS

Phones

LD 66

Local 8231



No. C. L.-80 Barber Burner

## BARBER APPLIANCE BURNERS

We are mainly on war production, but wherever permitted, we are supplying our regular products. Barber Units, in many standard or special shapes and sizes, are always correctly designed to fit the individual appliance, and give complete combustion on Butane-Propane or any other gas. Be ready for big post-war business—submit your special burner problems NOW to Barber engineers. Complete catalog on request.

**THE BARBER GAS BURNER CO.**

3704 Superior Ave.

Cleveland, Ohio

# ADVERTISERS

American Liquid Gas Corp.....	55	Merco Nordstrom Valve Co.....	1
American Meter Co.....	41	Milwaukee Gas Specialty Co.....	—
American Pipe and Steel Corp.....	86	National Butane Gas Co.....	93
American Stove Co.....	43	Neptune Meter Co.....	—
Anchor Petroleum Co.....	Front Cover	Ohio Foundry & Manufacturing Co., The .....	89
Arkansas Foundry Co.....	95	Pacific Gas Corp.....	Fourth Cover
Barber Gas Burner Co., The.....	95	Parkhill-Wade .....	86
Bastian-Blessing Co., The.....	48, 49	Payne Furnace & Supply Co., Inc. .....	3
Blickman, Inc., S.....	—	Pittsburgh Equitable Meter Co.....	1
Brodie Co., Inc., Ralph N.....	88	Pressed Steel Tank Co.....	Second Cover
Brunner Manufacturing Co.....	74	Radiator Specialty Co.....	84
Bryant Heater Co.....	12	Ransome Co.....	50
Butler Manufacturing Co.....	56	Reliance Regulator Corp. ....	68
Carter Oil Co., The.....	91	Reznor Manufacturing Co.....	83
Century Gas Equipment Co.....	88	Roadmaster Sales Corp. ....	92
Chicago Metal Hose Corp.....	89	Robertshaw Thermostat Co.....	84
Cities Fuel Exchange.....	89	Rochester Manufacturing Co.....	71
Clow, James B. & Sons.....	36	Roney, Inc., L. C.....	85
Commercial Shearing & Stamping Co., The .....	—	Roper Corp., Geo. D. (Pumps).....	44
Dallas Tank & Welding Co.....	64	Roper Corp., Geo. D. (Ranges).....	72
Dearborn Stove Co.....	79	Scaife Co. ....	Third Cover
Detroit-Michigan Stove Co.....	—	Servel, Inc. (Servel Electrolux).....	38
Downingtown Iron Works.....	—	Sinclair Prairie Oil Co.....	82
Ensign Carburetor Co., Ltd.....	63	Smith Meter Co.....	80
Estate Stove Co.....	6	Smith Precision Products Co.....	81
Fisher Governor Co.....	59	Southern Gas & Equipment Co.....	87
Florence Stove Co.....	47	Sprague Meter Co.....	92
Gas Equipment Co., Inc.....	93	Standard Oil Co. of California.....	—
Gas Equipment Supply Co.....	93	Superior Tank & Construction Co.....	91
General Controls .....	9	Superior Valve & Fittings Co.....	76
General Gas Light Co.....	—	Tappan Stove Co.....	53
Grand Home Appliance Co.....	34, 35	Tennessee Enamel Manufacturing Co. ....	93
Handbook Butane-Propane Gases..	77	Texas Boiler & Machinery Co.....	83
Harman Equipment Co.....	78	Thomas Truck and Caster Co.....	87
Harper-Wyman Co.....	4, 5	Tokheim Oil Tank & Pump Co.....	—
King Bros., Inc.....	94	United States Heater Co.....	90
Lancaster Iron Works, Inc.....	79	Viking Pump Co.....	85
Lindemann, A. J., & Hoverson Co..	60	Ward Heater Co.....	16
Mallinckrodt Chemical Works.....	90	Warren Petroleum Corp.....	67
McNamar Boiler & Tank Co.....	85	WPB Gas Flow Calculator.....	—